
E A S T E R N M I C H I G A N
U N I V E R S I T Y



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G R A D U A T E
C A T A L O G

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EASTERN MICHIGAN UNIVERSITY
BULLETIN

1991 - 1993
THE GRADUATE CATALOG
YPSILANTI, MICHIGAN 48197

ACCREDITED BY:
The North Central Association of Colleges and
Secondary Schools
Dr. Patricia Thrash, Director
1259 North Dearborn
Chicago, Illinois 60601
(312) 263-0456

For information on accreditation and to review copies of accreditation documents,
contact Dr. Donald H. Bennion, associate vice president for academic affairs, 106
Welch Hall, Eastern Michigan University.

This catalog is not all inclusive of policies and procedures and is subject to revision at
any time. The University reserves the right to change fees, courses, policies, pro-
grams, services, and personnel as required.

A MESSAGE FROM THE DEAN

Eastern Michigan University has a more than 140-year tradition and reputation as a fine institution of higher education. It has five outstanding academic colleges, including the College of Education, which enjoys a superior national reputation. Since its founding in 1849, Eastern Michigan has graduated more than one million students. Alumni from all colleges have utilized their expertise to improve the lives of countless individuals in Michigan, the nation, and many other countries.

Eastern Michigan is no longer a single-focus institution. Some persons might be surprised to discover that the University has greatly broadened its original educational mission to encompass a broad spectrum of undergraduate and graduate disciplines and research endeavors. Graduate education is exemplified in this *Graduate Catalog*.

The major highlight of this 1991-1993 catalog is the inclusion of the University's new doctoral program in educational leadership and the policies and procedures pertaining to it. As one of the largest American Association of State Colleges and Universities (AASCU) institutions, Eastern Michigan University has sought to achieve a full range of degree programs. The goal of offering doctoral education was established in 1986. In the spring of 1991, Eastern Michigan University was granted new institutional status as a doctoral (research) institution through its accreditation agency, the North

Central Association of Colleges and Secondary Schools. Eastern Michigan now joins the ranks of other comprehensive universities in Michigan and the nation that offer selected doctoral programs.

Eastern Michigan faculty take pride in the fact that learning (through their excellent teaching, research, scholarship, and creative work) takes precedence. They make every effort to involve students and provide a nurturing environment for student-originated research, scholarship, and creative works. The essence of the learning university, then, is that students and faculty members alike grow through their teaching-learning interactions. This is what we strive for—this is what a great university is about.

As one of 6,400 graduate students pursuing degrees in more than 80 areas of graduate study at Eastern Michigan, you enhance our great university through your contributions to learning, scholarship, research, and creative works. Those of us in The Graduate School appreciate your contributions and will try to assist you in any way we can to help you achieve your educational goals. We are interested in you and in knowing how well we are serving you. Your comments and suggestions are always welcome.

Ronald E. Goldenberg, Dean
The Graduate School
Starkweather Hall
March, 1991

UNIVERSITY CALENDAR

THE INSTRUCTIONAL YEAR

The instructional year is divided into two semesters of 15 weeks each, and spring and summer sessions that offer both six and seven and one-half week courses. In addition, workshops of one to three weeks duration are offered. Students who have satisfied admission requirements may enroll at the beginning of any semester or session.

Fall Semester, 1991

Classes begin September 4
Thanksgiving recess November 28-December 1
(no classes after 5:00 p.m., Nov. 27)
Fall semester closes December 19
Graduation date December 19
Commencement December 21

Winter Semester, 1992

Classes begin January 6
Winter recess February 23-March 1
Spring recess April 17-19
Winter semester closes April 25
Graduation date April 25
Commencement April 26

Spring Session, 1992

Classes begin May 6
Memorial Day recess May 25
Six week session closes June 16
Spring session closes June 26
Graduation date June 26
(no commencement exercises)

Summer Session, 1992

Classes begin June 29
Independence Day recess July 3
Six week session closes August 7
Summer session closes August 21
Graduation date August 21
(no commencement exercises)

Fall Semester, 1992

Classes begin September 2
Labor Day (no classes) September 7
Thanksgiving recess November 26-29
(no classes after 5:00 p.m., Nov. 25)
Fall semester closes December 18
Graduation date December 18
Commencement December 19

Winter Semester, 1993

Classes begin January 6
Winter recess February 21-28
Spring recess April 9-11
Commencement April 25
Winter semester closes April 27
Graduation date April 27

Spring Session, 1993

Classes begin May 5
Memorial Day recess May 31
Six week session closes June 15
Spring session closes June 25
Graduation date June 25
(no commencement exercises)

Summer Session, 1993

Classes begin June 28
Independence Day recess July 5
Six week session closes August 6
Summer session closes August 20
Graduation date August 20
(no commencement exercises)

IMPORTANT MISCELLANEOUS INFORMATION

1. The graduate admission process requires that applicants submit official academic transcripts from each college or university attended. A transcript is official only when it is sent directly by the academic institution in a sealed envelope and is embossed with the official university seal. All transcripts and admissions documents become the property of The Graduate School and *may not be duplicated* for any purpose other than an admission decision. Transcripts are not returned to the student.
2. Each semester, a final date for accepting completed applications for degree admission is established.
Fall admission March 15
Winter admission September 15
Spring/Summer admission February 15
Because of the complexity involved in the processing of international student applications, earlier admission dates have been established for this population. Please contact the Foreign Admissions Office, (313) 487-3061, for these deadlines.
3. If your admission objective is to obtain a teaching certificate, you must submit a letter of recommendation and a statement of purpose with your application. Preferably, the letter of recommendation should come from someone familiar with your work with children. In addition, your undergraduate grade point average must be 2.5 or above.

4. After gaining admission to a degree program, students must complete a minimum of 10 semester hours of graduate credit.
5. Graduate students are eligible to repeat graduate level courses only when they have earned a grade of less than a "B." Graduate courses may not be repeated more than once.
6. For information about the drop/add schedule, please consult the current semester course schedule. Students should be aware of the last day to drop a course and receive an automatic "W" (withdrawal) on their transcript.
7. Graduate students must begin to plan for their graduation the semester preceding their intended graduation date. An official Graduate School Application for Graduation must be submitted prior to the established deadline. Applications for graduation will not be accepted after the established date.
8. Graduate students are not eligible to take courses (graduate or undergraduate) on a pass/fail basis. Graduate students may take certain designated graduate courses for credit/no credit. These courses are noted in the Graduate School catalog.
9. Graduate students are not awarded "D" grades. A "D" grade will automatically convert to an "E" grade.
10. Graduate students may update a minimum of 15 hours of out-of-date credit. A grade of "B" must have been earned in these courses and the courses must be used to satisfy requirements of the degree. There are other stipulations regarding validation of out-of-date credit. Please contact the assistant graduate dean's office, (313-487-0048), for more information.
11. If you intend to enroll in an approved 400-level undergraduate course for graduate credit, **you must come to The Graduate School for written permission before enrolling in the course.** Otherwise, you will receive undergraduate credit.
12. Student teaching may never be taken for graduate credit. Undergraduate independent study courses may not be taken for graduate credit.

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GOVERNMENT OF THE UNIVERSITY

Eastern Michigan University is an autonomous university governed by an eight-member board of regents appointed by the governor and subject to the approval of the state senate. Financial support for the University comes from tax monies paid by the people of Michigan and student tuition and fees.

BOARD OF REGENTS

Anthony A. Derezinski, Chairperson (1996)	Ann Arbor
James Clifton, Vice Chairperson (1996)	Ypsilanti Township
John H. Burton (1994)	Ypsilanti
Thomas Guastello (1992)	Grosse Pointe Farms
Richard N. Robb (1992)	Ypsilanti
Robert DeMatia (1994)	Bloomfield Hills
Gayle P. Thomas (1999)	Dearborn
Robin Sternbergh (1999)	Bloomfield Hills

(Appointment Termination Date)

CIVIL RIGHTS POLICY

Eastern Michigan University shall not discriminate against any person because of race, color, religion, creed, sex, national origin, or ancestry. Further, the University shall work for the elimination of improper discrimination in the areas listed above (1) in organizations recognized by the University, and (2) from non-University sources where students and employees of the University are involved.

Statement of Equal Opportunities and Affirmative Action Policies

Eastern Michigan University admits students of either sex, any race, color, and national or ethnic origin to all the rights, privileges, programs, and activities accorded to students at this University. The University does not discriminate against students on the basis of sex, race, color, or national and/or ethnic origin in the administration of its educational policies, admissions policies, scholarships and loan programs, athletic and other University-administered programs. Further, it is the policy and practice of Eastern Michigan University to take affirmative action in all personnel matters.

Title IX of the Education Amendments of 1972

It is the policy of Eastern Michigan University to comply with Title IX of the Education Amendments of 1972 and its regulation, which prohibits discrimination on the basis of sex. Anyone who believes that in some respect Eastern Michigan University is not in compliance with Title IX and its regulations should contact the Executive Director of Human Resources at (313) 487-1052, 311 King Hall.

Rehabilitation Act of 1973

In its programs, activities, and employment, Eastern Michigan University does not discriminate on the basis of handicap. Anyone who believes that in some respect Eastern Michigan University is not in compliance with the Rehabilitation Act and its regulations should contact the Executive Director of Human Resources at (313) 487-1052, 311 King Hall. Handicapped individuals who are otherwise qualified for admission are invited to apply. Students encountering difficulty with access to full participation in University activities should contact the Dean of Students in 218 Goodison Hall.

Family Educational Rights and Privacy Act

In compliance with the Family Education Rights and Privacy Act, Eastern Michigan University assures that any person who is or has been in attendance as a student at EMU has access to his/her educational records. Furthermore, such individual's rights to privacy are assured by limiting the transferability of records without the student's consent.

The following are matters of public record and may be included in publications or disclosed upon request without consent: the student's name, address, telephone listing, date and place of birth, major field of study, participation in recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degree and awards received, and the most recent previous educational agency or institution attended by the student. Registration documents or student organizations that contain the names and addresses of the officers and the statement of purpose of the organization also are considered public information. These documents are available in the Campus Life Office, 221 Goodison Hall.

EMU reserves the right to make directory information public unless a student's written objection (specifying the category of information not to be made public without prior consent) is filed at the Office of the Dean of Students within 14 days after each term begins.

Individuals who believe that the University is not in compliance are invited to contact the executive director of human resources at (313) 487-1052.

UNIVERSITY PROFILE

Eastern Michigan University is a multipurpose university whose roots date back to 1849, when the State Legislature designated it as Michigan's first institution to educate teachers to serve the public schools. At that time the Detroit school system was only 10 years old and the transition from one-room schoolhouses had just begun.

Graduate education was inaugurated in 1938 when programs were conducted in cooperation with the University of Michigan. In 1953, Eastern gained approval to offer its own graduate programs.

For its first 100 years, Michigan State Normal School, as EMU was conceived, certified thousands of teachers and developed the broad-based academic curricula that prepared it for its evolution to university status in 1959. Within the new university, three colleges emerged: the College of Education, the College of Arts and Sciences, and The Graduate School. The University has expanded three more times: in 1964 with a College of Business, in 1975 with a College of Health and Human Services, and in 1980 with a College of Technology.

New colleges precipitated the need for additional acreage. The University campus spread from its original 275 acres on the south side of the Huron River to encompass an additional 182 acres west of the campus primarily for student residences and athletic facilities. Buildings have multiplied; among the newest are the Olds Student Recreation Center, opened in the fall of 1982 to provide needed recreational and intramural activities for the growing student body, the Sponberg Theatre addition to the Quirk Building, dedicated in January 1986, and the Coatings Research Building, opened in fall 1987. Eastern Michigan University's campus now extends into downtown Ypsilanti, where its new Gary M. Owen College of Business Building is located.

Student enrollment continued to increase through the 1980s. The rapid college matriculation experienced in the late 1960s peaked in 1975 at 19,965, stabilized at 18,500 plus in 1979 and then began its upward climb again, totaling 25,024 in the fall of 1990, 19,700 students enrolling as undergraduates and 5,324 as graduate students.

Today's student body includes both full-time and part-time students, indicative of the national trend of mature adults returning to complete college educations and to prepare for new careers in a changing society. Women comprise almost 60 percent of EMU's student body. Many students work part time and others are assisted by EMU's Office of Financial Aid in work-study programs to meet the escalating costs of a college education.

Included in the geographic distribution of EMU graduate students in 1990 were 91.2 percent from the state of Michigan, 4.7 percent from out-of-state, and 4.1 percent who listed citizenship from countries other than the United States. Approximately 60 percent of the students from other states were from Ohio, largely because of a reciprocity tuition plan.

Program development has consistently adapted to the needs of entering and returning students as the world greets the new era of high technology. College faculty as well as college students are becoming computer literate. More opportunities are being offered to those seeking practical experience through business-industry internships and cooperative education experiences. Courses are provided in approximately 70 fields of study to the graduate student body.

EMU's perspective also has grown larger, not only in on-campus program developments but also in regular or special courses offered in 14 counties through its Division of Continuing Education and in cooperative agreements with nearby community colleges. The Office of Academic Programs Abroad plans spring/summer travel-study credit

programs abroad and student-faculty exchanges with the University of Warwick, the Bulmershe College of Higher Education, and Nonington College, all in England.

Eastern Michigan University today is known worldwide for its educational contributions. Its 76,700 graduates are scattered among many countries as well as coast-to-coast in the United States, both strengthening and supporting the foundation that is the multipurpose university in Ypsilanti, Michigan.

EASTERN MICHIGAN UNIVERSITY campuses and buildings are detailed at the back of the catalog, along with a map of the campus.

COLLEGES AND DEPARTMENTS

College of Arts and Sciences: African-American Studies; Art; Biology; Chemistry—**accredited** by American Chemical Society; Communication and Theatre Arts; Computer Science; Economics; English Language and Literature; Foreign Languages and Bilingual Studies; Geography and Geology; History and Philosophy; Mathematics; Music—**accredited** by National Association of Schools of Music; Physics and Astronomy; Political Science (Public Administration Program—**accredited** by the National Association of Schools of Public Affairs and Administration); Psychology; Sociology, Anthropology and Criminology; Women's Studies.

College of Business: **accredited** by the American Assembly of Collegiate Schools of Business; Accounting; Finance; Management; Marketing; Operations Research and Information Systems.

College of Education: **accredited** by the National Council for Accreditation of Teacher Education; Health, Physical Education, Recreation and Dance; Leadership and Counseling—**accredited** by the Council for Accreditation of Counseling and Related Educational Programs; Special Education—**accredited** by the American Speech and Hearing Association for its Speech Pathology Program for Teachers of the Speech and Language Impaired and by the Council on Education of the Deaf for the Hearing Impaired Program; Teacher Education.

College of Health and Human Services: Associated Health Professions; Human, Environmental and Consumer Resources; Nursing Education; Social Work.

College of Technology: Business and Industrial Education; Industrial Technology; Interdisciplinary Technology; Military Science.

ADMINISTRATIVE OFFICERS

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Provost and Vice President for Academic Affairs	Ronald W. Collins
Vice President for Business and Finance and Treasurer to the Board of Regents	Janet G. Pichette
Vice President for University Marketing and Student Affairs	Laurence N. Smith
Executive Associate to the President and Secretary to the Board of Regents.....	Juanita Reid
University Attorney.....	Kenneth A. McKanders

UNIVERSITY PLANNING, BUDGETING AND ANALYSIS:

Executive Director	George A. Johnston
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STRATEGIC PLANNING:

Executive Counsel to the President	George E. McCloud
---------------------------------------------	-------------------

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Associate Vice President for Academic Affairs	Donald H. Bennion
Assistant Vice President for Academic Affairs.....	David D. Tammany
Administrative Associate.....	Mary C. Lilley
Academic Budget Officer	Michael L. Chirio Jr.

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Associate Dean, Acting	Hector Garza
Interim Assistant Dean	Dennis C. Jackson
Director and Associate Dean Research Development	David L. Clifford
Associate Director.....	Cheryl Kozell
Research Associate	Michelle Barnes

COLLEGE OF ARTS AND SCIENCES:

Dean	Barry Fish
Administrative Associate	Velma G. Clarke
Departments:	
African-American Studies, Head	Ronald C. Woods
Art, Head	John E. VanHaren
Biology, Head	William E. Fennel
Chemistry, Head	Judith Levy

Communication and Theatre Arts, Head	Dennis M. Beagen
Computer Science, Head	George E. Haynam
Economics, Head	Young-Iob Chung
English Language and Literature, Head	Marcia A. Dalbey
Foreign Languages and Bilingual Studies, Acting Head	William J. Cline
Bilingual Bicultural Program, Director	Phyllis A. Clemens Noda
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History and Philosophy, Head	Ira M. Wheatley
Mathematics, Head	Don R. Lick
Music, Head	James B. Hause
Physics and Astronomy, Head	Dan Trochet
Political Science, Head	Joanna Scott
Psychology, Acting Head	Kenneth Rusiniak
Sociology, Anthropology and Criminology, Acting Head	Werner Einstadter

COLLEGE OF BUSINESS:

Dean	Stewart L. Tubbs
Associate Dean	Dan Devine
Departments:	
Accounting, Head	Mohsen Sharifi
Finance, Head	Asrat Tessema
Management, Head	Ray Hill
Marketing, Head	Robert Dodge
Operations Research and Information Systems, Head	V.M. Rao Tummala

COLLEGE OF EDUCATION:

Dean	Pending
Associate Dean	Mary A. Green
Associate Dean	Robbie A. Johnson
Departments:	
Health, Physical Education, Recreation and Dance, Head	Patric L. Cavanaugh
Leadership and Counseling, Head	Martha Tack
Special Education, Head	Kathleen S. Quinn
Teacher Education, Head	Jeanne Pietig
Center for Community Education, Director	Jack D. Minzey

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Health Administration, Acting Director	Richard L. Douglass
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Occupational Therapy, Director	Yvonne Teske
Human, Environmental and Consumer Resources, Head	Elizabeth J. Rhodes
Nursing Education, Head	Regina Williams

Social Work, Head Donald M. Loppnow

COLLEGE OF TECHNOLOGY:

Dean Alvin E. Rudisill

Departments:

Business and Industrial

Education, Head H. James Rokusek

Industrial Technology, Head Everett N. Israel

Interdisciplinary Technology, Head Paul D. Kuwik

Military Science, Head..... LTC. Michael W. Maasberg

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Associate Registrar Paul L. Zabawa

Coordinator of Registration Sherry Winterson

CONTINUING EDUCATION:

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Associate Dean Arthur N. McCafferty

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Director George J. Klein

Coordinator, Independent Study Michael McPhillips

Associate Director Clifford McNish

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Acting Associate Dean George Grimes

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Assistant Director Beverly Farley

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Director George Beaudette

Assistant Director Carole Lick

COATINGS RESEARCH INSTITUTE

Director John C. Graham

CENTER FOR CORPORATE LEARNING (CENTER FOR ORGANIZATIONAL RISK REDUCTION):

Director Walter DiMontova

CENTER FOR ENTREPRENEURSHIP:

Director Patricia Weber

CENTER FOR GOVERNMENT LEARNING (INSTITUTE FOR COMMUNITY AND REGIONAL DEVELOPMENT-ICARD):

Director Charles Monsma

CENTER FOR QUALITY (CORPORATE SERVICES):

Director Beth VanVoorhees

CORPORATE EDUCATION CENTER:

Director Marcia D. Harrison-Harris

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Information Susan Bairley

Associate Director, University

Publications Sue McKenzie

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Director Doris A. Komblevitz

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Assistant Controller: Accounts

Payable, Payroll Regina Kelly

Assistant Controller: Funds Accounting Lee Lien

Assistant Controller: Student Business

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Associate Director, Public Safety Cindy Hall

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Associate DirectorPamela Fowler**CAREER SERVICES CENTER:**

Acting DirectorJ. Michael Erwin

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Associate Dean Vacant
Director, Foreign Student Affairs.....Paul Dean Webb
Veterans Affairs OfficerRobert Teehan**HEALTH SERVICES:**DirectorEllen Gold
Associate DirectorLinda Vengroff**CAMPUS LIFE:**

DirectorGlenna Frank Miller

COUNSELING:

Associate DirectorRosalyn Barclay

UNIVERSITY CHILDREN'S INSTITUTE:DirectorLindy Buch
Coordinator of ServicesLorraine Paffenroth
Coordinator of ProgramsTerry McVicar**HOUSING, DINING, UNION, CONFERENCES:**Acting DirectorJames Vick
Assistant to DirectorDeborah Profitt Yost**RECREATION/INTRAMURALS:**DirectorRobert England
Associate DirectorMichael O'Connor
Assistant Directors.....Lou Gianina, Kristi Jacobs
Jack Moffett**TUITION AND FEES****FEES SUBJECT TO REVISION**

All University fees and assessments are subject to change by action of the Board of Regents.

APPLICATION FEE

A one-time, non-refundable admission fee of \$25 is charged to each student who makes application for admission to The Graduate School. This fee became effective fall 1990.

GRADUATION FEE

A graduation fee of \$35 is charged to each student who makes application for graduation. The fee is non-refundable and is assessed only once for each degree; doctorate, specialist's, and master's. A fee of \$20 is charged to each student who makes application for a non-teaching certificate (e.g., a graduate certificate in gerontology).

TUITION SCHEDULE

Tuition will be assessed for all credit hours for which the student is registered. Off-campus tuition rates are the same as on-campus tuition rates. Regardless of student class level, undergraduate tuition will be assessed for all 100 through 400- level courses. Graduate tuition will be assessed for all 500, 600, 700, 800, and 900-level courses.

Tuition rates per credit hour effective fall 1990 are:

Michigan and Ohio Residents

Undergraduate Courses	
(100-200 level)	\$62.75
(300-400 level)	\$66.00
Graduate Courses	
(500-900 level)	\$89.50

Non-Resident

Undergraduate Courses	
(100-200 level)	\$160.00
(300-400 level)	\$167.00
Graduate Courses	
(500-900 level)	\$212.00

Michigan residency questions should be raised by the student with the Student Accounting Office, prior to registration. The Student Accounting Office is located in 203 Pierce Hall.

OFFICIAL REGISTRATION DAY

The official registration day each semester for each student for purposes of payment of the registration fee and assessment of tuition is the day the student completes the initial registration for the semester or session.

REGISTRATION FEE

A registration fee of \$40 for each of the fall and winter semesters, and of \$30 for each of the spring and summer sessions, is charged to each student.

This fee is assessed and collected at the time the student registers for the semester or session and is non-refundable.

QUALIFICATIONS FOR MICHIGAN RESIDENCE

Eligibility

In order to be eligible for the resident tuition rate at Eastern Michigan University, it must be demonstrated that a student is already a resident of the state of Michigan or that he/she is coming to the University from outside of the state for reasons primarily other than to attend the University. In order to determine the residence of a student, the following policies will be utilized.

I. Minors

The residence of a student who is not yet 18 years of age follows that of the student's parents or legal guardian. If that student's parents or legal guardian would qualify in accordance with the criteria listed in *VI. Criteria for Determining Intent*, that student shall be considered a Michigan resident for tuition purposes.

II. Non-Dependent Students

A student 18 years of age or older shall be eligible for classification as a Michigan resident for tuition purposes if he/she qualified in accordance with the criteria listed in *VI. Criteria for Determining Intent*.

III. Spouse of Eligible Person

The residence of a student who otherwise would be classified as a non-resident for tuition purposes will follow that of the student's spouse, if the spouse is eligible for classification as a Michigan resident for tuition purposes (applicable only to U.S. citizens or to aliens admitted for permanent residence in the United States who have obtained a permanent or diplomatic visa).

IV. Aliens

An alien (non-citizen) shall be eligible for classification as a Michigan resident for tuition purposes only if the student is lawfully admitted for permanent residence in the United States, has received a permanent or diplomatic visa, and qualifies in accordance with the criteria listed in *VI. Criteria for Determining Intent*.

V. 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 shall be considered Michigan residents for tuition purposes if they or their parents

or legal guardians were employed in Michigan for a 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 also may be used by migrant workers to establish their status.

VI. Criteria for Determining Intent

Students from outside the state and for whom the above policies are not applicable shall be considered non-resident students unless it can be determined that their primary purpose in coming to Michigan is to establish residence in the state, rather than to attend a university. For the purpose of determining intent in such cases, the following criteria shall, standing alone, necessarily be controlling. It shall be the responsibility of the administration to apply the criteria in a fair and consistent manner and in the spirit of the intent of this policy.

- a. High school or previous college attendance in Michigan.
- b. Reliance upon Michigan sources for financial support.
- c. Residence in Michigan of family, guardian, or other relatives or persons legally responsible for the student.
- d. Former residence in Michigan and maintenance of significant connections therein while absent.
- e. Continuous presence in Michigan during periods when not enrolled as a student.
- f. Long-term military commitments in Michigan.
- g. Acceptance of an offer of permanent employment in Michigan and source, length, and continuity of employment.
- h. Traditional considerations made in determining legal residence; i.e., voter registration, ownership of real estate, source of driver's and vehicle licenses, taxpayer status, self-supporting or dependency on others whether residents of Michigan or elsewhere.

VII. Determination of Residence

A student's residence status shall be determined at the time of his/her initial admission to the University. This status may be reviewed at each subsequent registration. If a student's circumstances should change to the extent that he/she would no longer be considered a Michigan resident for tuition purposes, as herein described, that student shall be reclassified as a non-resident for tuition purposes six months thereafter.

Note: It shall be the responsibility of all students, prior to registration, to raise questions in the **Student Accounting Office** regarding their right to be registered as Michigan resident students. The administration is authorized to establish procedures and delegate authority for determining the domicile of students for tuition purposes and to make exceptions within the spirit of this policy.

TUITION RECIPROcity AGREEMENT WITH OHIO

Ohio residents may now attend Eastern Michigan University at Michigan resident tuition rates, and Michigan residents of Monroe County can attend the University of Toledo at Ohio resident tuition rates.

The tuition reciprocity agreement was entered into by the Michigan State Board of Education and the Ohio Board of Regents. The agreement was effective with the fall semester 1978.

AUDITING FEES

Tuition and registration rates for auditing classes are the same as for credit.

WORKSHOP SESSIONS

Several two- and three-week workshop sessions are offered during the spring and summer sessions. Tuition and registration fees apply to workshop sessions at the same rates as for regular class sessions. However, a student enrolled in other course work during a session will not be assessed an additional registration fee for enrolling in a workshop during the same session.

1. An adjustment of 100 percent of the tuition assessment will be made to those students who withdraw prior to the close of business (5:00 p.m.) on the first day of the session.
2. No other adjustment or refund will be granted.

FINANCIAL OBLIGATIONS

Having fulfilled all other requirements, a student is eligible for registration or graduation only if all financial obligations to the University have been met at the time of graduation or at the close of the semester or session. Credits or other statements of record will be withheld and the student will be ineligible for further registration (fall advance registration excepted) at EMU and until all obligations have been fulfilled.

PAYMENT OF TUITION

The exact due date for tuition and other University fees is printed on the invoice from Student Accounting and is published in the class schedule bulletin for each semester. To ensure a correct billing address, it is the responsibility of the student to inform the University of any address changes by completing a change of address form in the Registration Office.

Registration for the fall semester begins in March and continues until the first day of classes. Payment of previously incurred University obligations may be required prior to registration. Students will be required to pay all previously incurred University obligations and 50 percent of tuition and room and board and 100 percent of all required fees by the registration verification date or their registration will be automatically canceled, their registration fees will be forfeited, and those classes will be made available to other students. **If a student wishes to drop all classes, written verification must**

be given to the Registration Office, rather than relying on the automatic cancellation process. Students whose registrations have been canceled by this process may re-register upon payment of another registration fee of \$40, all past-due accounts, 50 percent of tuition and room and board, and 100 percent of required fees.

For those students who prefer to make installment payments, the University provides an optional installment payment plan for fall and winter semesters only. The installment payment plan requires payment of 50 percent of tuition, room and board, and 100 percent of required fees by the registration verification date. The remaining balance, including any course fees, is payable approximately the eighth week of the semester. Specific dates are published in the class schedule bulletin for each semester. An installment payment service fee of \$20 is collected with the second installment payment.

Students who register during **drop/add, post registration, and late registration** will be required to pay all previously incurred University charges, 50 percent of tuition and room and board, and all required fees **at the time of registration.**

A late payment fee of \$20 per month to a maximum of \$100 per semester is assessed if the second payment is not received by the due date.

Winter semester registration procedures require that students will pay as a minimum all previously incurred University obligations, 50 percent of tuition and room and board, and all required fees by the registration verification date.

Spring and summer sessions are separate sessions. Registration procedures require that for each session, students pay all previously incurred University obligations, 100 percent tuition, room and board, and all required fees. **There is no provision for installment payment for spring or summer sessions.**

Eastern Michigan University accepts Visa and MasterCard credit cards in payment of tuition, fees, room and board.

If a student's account is past due for a current semester, enrollment, University housing, and other University services (such as release of grades or a certified transcript) are subject to suspension until the account is brought into current status. Payment of assessments for a current semester does not relieve the student of the obligation for payment of any balance from a prior semester. The privilege of using the installment plan for payment of tuition and room and board may be denied to students whose University account has been in arrears.

PROGRAM ADJUSTMENT FEE

Program adjustments may be made for five days prior to the beginning of classes without penalty. During this period, each academic department will maintain a station at one central location to assist in program planning and scheduling conflicts. At least 50 percent of the increased tuition resulting from adjustments must be paid at the time of adjustment in the fall and winter

semesters, 100 percent in the spring and summer sessions. Actual dates are printed in the class schedule bulletins.

During the first seven class days of the fall/winter semesters and the first four class days of the spring/summer sessions, a program fee of \$10 per transaction will be assessed for each student-initiated program adjustment. For the purpose of determining the program adjustment fee, one drop accompanied simultaneously by one add will be considered as one transaction. Individual adds or individual drops will be considered as individual transactions and will be assessed \$10 each. At least 50 percent of the increased tuition resulting from adjustments must be paid at the time of adjustment in the fall/winter semesters, 100 percent in the spring/summer sessions. For final adjustment deadlines and coordinate fee schedules, see the class schedule bulletins.

No program adjustment fees will be assessed for changes required as a result of University actions.

LATE REGISTRATION FEE

A late registration fee of \$10 is charged to those students who, for any cause, do not complete registration prior to the official first day of classes each semester. Checks returned by a bank constitute late registration, and the late registration fee is charged.

CANCELLATION OF REGISTRATION

If a registered student should decide before classes begin not to return to Eastern, he/she must initiate a cancellation of registration form in person or by letter through the Registration Office, Pierce Hall. If the student has applied for University housing, the contract also must be canceled in the Housing Office. This is necessary for cancellation of tuition and room and board assessments.

WITHDRAWAL FROM THE UNIVERSITY

To be eligible for any adjustment of tuition or housing assessment after classes have begun, a withdrawal from the University must be initiated in person or by letter through the Registration Office, Pierce Hall. The date the request is made to the Registration Office or the postmark date will be used in determining the amount of any assessment adjustment.

The University withdrawal policy is:

1. Students who drop during the first seven calendar days of the semester (three calendar days for spring/summer) will receive a 100 percent tuition credit adjustment and no grades will be posted. An adjustment fee of \$10 is charged.
2. Students who drop during the next 14 calendar days of the semester (the next four calendar days for spring/summer) will receive a 50 percent tuition credit adjustment and no grades will be posted.
3. Students who drop after 21 calendar days of the semester (seven for spring/summer) through the day prior to the first day of University final examinations

will receive no tuition credit adjustment and grades of "W" will be posted.

4. No withdrawal will take place after the official University final examination period has begun.

Actual dates are printed in the class schedule for each semester and session.

DECREASE IN ACADEMIC LOAD

1. A credit adjustment of 100 percent of the difference in tuition assessment for the fall and winter semesters will be made to those students who decrease their academic load prior to the sixth day of classes. For the spring and summer sessions, a 100 percent credit adjustment will be made during the first three days of classes. Actual dates are printed in the class schedule for each semester and session.
2. A credit adjustment of 50 percent of the difference in tuition assessment for the fall and winter semesters will be made to those students who decrease their academic load between the sixth and fifteenth class day. For the spring and summer sessions, a 50 percent adjustment will be made during the fourth through seventh class days of the session. Actual dates are printed in the class schedule for each semester and session.
3. No credit adjustments will be made after the above stipulated dates.

SUSPENDED OR DISMISSED STUDENT

During the semester or term, a student suspended or dismissed from the University for a violation of the Student Conduct Code shall receive a credit adjustment based on the Account Adjustment Schedule published in Eastern Michigan University bulletins. The date from which the credit adjustment will be calculated for tuition and fees will be the day the appropriate administrative officer, i.e., the dean of students or president or their designees, first notifies the student of suspension or dismissal. The date from which the credit adjustment will be calculated for housing and food service will be the day service is terminated to the student.

ACCOUNT ADJUSTMENTS AND REFUNDS

An appeals process exists for students who feel that individual circumstances warrant exceptions from published policy, as stated within those sections under "Withdrawal from the University" and "Decrease in Academic Load." The appeals process is as follows:

1. Obtain a Tuition and Fee Appeal Application from the Student Business Office in Pierce Hall. Complete and return the application along with an explanation of the extraordinary circumstances involved and supporting documentation of those circumstances. An approval or denial will be issued in writing by return mail.
2. If the application is denied, appeal in writing to the manager of student business services at the address

above. Be sure to include any additional pertinent information with your written appeal.

3. If, after following the procedures in steps 1 and 2, an acceptable solution is not achieved, a final written appeal may be made to the Vice President for Business and Finance (101 Welch Hall, Ypsilanti, MI 48197).

Tuition and fee appeal applications must be submitted as early in the semester as possible. Applications received later than 15 calendar days after the close of the semester and the mailing of final grades may be denied on the basis of a lack of timeliness.

HEALTH SERVICE FEE

Effective July 1, 1991 all students are charged a student health service fee of \$1.75 per on-campus credit hour. This will be shown as a separate fee on all student's bills.

APPLIED MUSIC FEE

All students accepted for private music lessons will be assessed an applied music fee. Applied music fee rates for 1990 are:

Music majors:

\$60 per semester for all instruction

Graduate and other University students:

\$60 per semester for one-hour lesson

\$30 per semester for half-hour lesson

Students from public schools, the community and EMU staff and families:

\$90 per semester for one-hour lesson

\$45 per semester for half-hour lesson

Lessons are arranged through the Music Department.

The applied music fee is assessed to each student's account at the close of the program adjustment period. This fee is not refundable after the first lesson.

STUDENT GOVERNMENT FEE

Beginning winter semester, 1989, graduate students will be charged a nominal student government fee: \$2 each fall and winter semester; \$1 each spring and summer session.

STUDENT ACTIVITY/FACILITY FEE

A fee of \$47 per semester for fall and winter semesters is assessed of all students not living in University housing taking four or more credit hours. All students paying this fee are eligible for free admission to home basketball and football games. All students not living in University housing are assessed a student activity fee of \$23.50 during the spring and summer terms. This fee is used to renovate and enhance campus facilities and the campus environment.

OTHER COURSE FEES

Fees are assessed at the close of the program adjustment period to cover extra costs and materials involved with certain courses. These courses are identified in each semester's class bulletin.

EDUCATION BULLETIN

A charge of \$10 is made for each annual subscription to the University Education Bulletin service. Subscriptions are available on an annual basis only.

TRANSCRIPT FEE

Each student is furnished one official transcript at the time of graduation without charge.

A charge of \$5 is made for each additional transcript.

VEHICLE OPERATION AND PARKING

All students meeting the requirements of the law, and who live in University housing or are defined as commuting students, are eligible to maintain and operate a motor vehicle on campus by purchasing a proper parking decal. Motor vehicles are required to be operated within the provisions of the Traffic, Parking and Pedestrian Ordinance of the University, details of which are printed in the Ordinance and in the Parking and Traffic Regulation brochure.

FINANCIAL ASSISTANCE

There are several sources of financial assistance available to graduate students at Eastern Michigan University. The following are just a few; contact the Financial Aid Office, 403 Pierce Hall, (313) 487-0455, for additional information.

The **GRADUATE ASSISTANTSHIP PROGRAM** is administered by The Graduate School of Eastern Michigan University. This very competitive program provides financial support and experiential training to graduate students who are degree admitted to a program and who display the skills to be a graduate assistant (GA) in an academic or administrative department on campus. Appointments to graduate assistantships are made for up to a two-year period and are contingent upon the recommendation of an academic department and the approval of The Graduate School. Once accepted into the assistantship program, the student must maintain at least a 3.0 cumulative grade point average and continue progress toward completing the program of study. Three categories of assistantships are available; departmental (hired by the academic department), minority (approved by the Minority Graduate Assistantship Committee), and college work-study (approved by the graduate dean and the Office of Financial Aid). Please note that *foreign students are not eligible for minority or college work-study assistantships*, but can be and are considered for departmental GA positions.

Eligibility:

1. The graduate assistant applicant must be degree admitted to a graduate program.
2. The undergraduate grade point average must be equal to the average of students admitted to the college's degree programs. Once admitted, a 3.0 graduate grade point average must be maintained.
3. College work-study GA applicants also must complete the proper financial aid forms through the Office of Financial Aid. Please allow a minimum of eight weeks for the processing of financial aid forms.

Benefits:

1. For a full-time academic year GA appointment, the University pays full tuition *up to 18 credit hours for each fiscal year of the assistantship*. For the graduate assistants who are appointed to part-time positions, the number of credit hours covered by the award will be proportionately less.
2. The graduate assistantship program also provides for the payment of registration, student government, and health center fees.
3. Graduate assistants are provided a parking permit for selected faculty/staff lots, faculty library privileges and a 10 percent discount on items purchased at the University Bookstore.

4. In addition to the above direct University payments and services provided, the full-time graduate assistant also receives a stipend which will be \$4,800 for the first academic year appointment, and \$5,000 for the second year. Again, part-time appointments will cause the stipend to be proportionately lower.
5. Graduate assistants receive priority registration, provided they submit their registration materials to the Graduate Dean's Office by the appropriate date.
6. The experiential opportunities which are provided by the graduate assistantship program also should be recognized as intangible advantages.

Contact your department for information on graduate assistant positions that may be open. For more information on the graduate assistantship program, please contact the Graduate Dean's Office, Starkweather Hall, (313) 487-0042.

The **MINORITY GRADUATE ASSISTANTSHIP PROGRAM** has as its main purpose the attraction of highly qualified minority students interested in academic disciplines that traditionally have not been accessible to minorities. Eastern Michigan University continually encourages the application and enrollment of promising minority graduate students and recognizes the need for well-trained minority scholars.

For more information on this program, please call (313) 487-0042.

The **GRADUATE FELLOWSHIP PROGRAM** is a distinction of honor awarded to selected graduate students on the basis of academic merit. The award is in the form of a \$300 tuition waiver per semester (fall and winter) with the provision that *the fellow must enroll in and complete at least six hours of graduate level course work in each of the terms of the award*. Undergraduate courses taken for graduate credit are not considered as part of the required six hours.

Both new and continuing graduate students are eligible to apply for an appointment as a graduate fellow. New graduate students must present a minimum 3.2 cumulative undergraduate grade point average to receive consideration. Graduate students who have already begun their programs must present a minimum 3.6 cumulative graduate grade point average to receive consideration. Students having completed more than 15 graduate hours of their current degree program at the time of the initial award decision are not eligible for this program.

Graduate students who have been appointed as graduate fellows (1) must hold degree admission to an academic program leading to either a master's or a specialist's degree; (2) must maintain a cumulative graduate grade point average of 3.6 at all times during their fellowship in order to maintain the award; (3) are eligible to apply for reappointment for one additional academic year if they continue to achieve a 3.6 cumula-

tive graduate grade point average. Students accepted into the graduate assistantship program are not eligible to be graduate fellows.

Applications are available in the Graduate Dean's Office, Starkweather Hall.

NEED-BASED AID

To qualify for need-based aid, graduate students must submit a financial aid application to either of the two national processors, American College Testing (ACT) or College Scholarship Service (CSS). The processor evaluates the student's financial strength and, based on the federal government's formula, determines whether the student has financial need. A student may be asked to provide parent information if he/she is determined to be a dependent applicant. Instructions in the financial aid application clearly indicate which students are dependent and which are independent. Students should begin the application process the December prior to fall enrollment. Aid is automatically granted for fall and winter. Students who will need financial aid for spring and summer must notify the Office of Financial Aid.

Financial aid applications are available from the Office of Financial Aid, 403 Pierce Hall.

COLLEGE WORK-STUDY (CWS) is an employment program that allows students demonstrating financial need to work up to 20 hours per week on campus or at participating off-campus agencies. Student wages are paid 80 percent from federal funds and 20 percent from University funds. Hourly pay is set according to the campus-wide pay scale for student position classifications. Applications are available from the Office of Financial Aid, 403 Pierce Hall.

FULL-TIME SUMMER COLLEGE WORK-STUDY is for graduate students who will not be enrolled during the summer term and who would like to work full-time from July 1 through the end of August. Applicants must be eligible for need-based aid and must fill out an application for the upcoming aid year. (For example, a student who wants to work during the 1991 summer semester must complete the 1991-92 financial aid application.)

COLLEGE WORK-STUDY GRADUATE ASSISTANTSHIPS of a limited number are funded through the College Work-Study Program. Interested students should contact the Graduate Dean's Office. Students need to submit normal graduate assistantship application material, as well as the Family Financial Statement or Financial Aid Form for the College Work-Study Program.

PERKINS LOANS (formerly NATIONAL DIRECT STUDENT LOANS) are long term educational loans made to students demonstrating financial need. Graduate

students may borrow up to \$2,500 per academic year. Repayment of the loan at 5 percent simple interest depends on your borrowing status as described below:

- if you have an outstanding principal or interest owing on any direct loan (**PERKINS/NATIONAL DIRECT STUDENT LOAN**) prior to July 1, 1987, you may begin paying six months after you graduate, leave school, or drop below half-time status.
- if you are a new borrower who has no previous outstanding principal or interest owing on any direct loan as of July 1, 1987, you may begin paying nine months after you graduate, leave school, or drop below half-time status.

You may be allowed up to 10 years to repay your loans. The amount of your payment depends upon the size of your debt, but usually you must pay at least \$30 per month. Repayment terms must be arranged with the Student Loan Accounting Office before the student leaves Eastern Michigan University. Applications are available from the Office of Financial Aid, 403 Pierce Hall.

STAFFORD LOAN PROGRAM (formerly Guaranteed Student Loan—GSL) is a low-interest loan available to graduate students who demonstrate financial need. Graduate students can borrow up to \$7,500 per academic year with a cumulative undergraduate and graduate limit of \$54,750. Interest payments are made by the federal government for eligible students while the students are in school.

OTHER AID

STUDENT EMPLOYMENT listings for on and off-campus employment are maintained by the Eastern Michigan University Student Employment Office, Career Services Center, Fourth Floor Goodison Hall. Many non-college work-study jobs are available. Students do not have to demonstrate financial need to work in regular on-campus jobs.

All students must make application with Student Employment in order to be placed in part-time positions with the University. On-campus employment is limited to 20 hours per week. Students who are eligible for the College Work-Study Program must be approved by the Office of Financial Aid, 403 Pierce Hall.

The Student Employment telephone number is (313) 487-0400.

OFF-CAMPUS AND SUMMER EMPLOYMENT Annually, thousands of students obtain part-time positions through the Student Employment Office in the Career Services Center, Fourth Floor Goodison Hall. These positions are on campus and in the surrounding community. They range from odd jobs and babysitting to extended part-time highly skilled positions.

The Job Location and Development Program of the Student Employment Office develops off-campus, career-related part-time and summer jobs for students.

Summer employment opportunities are available with campus, resorts, recreation programs, businesses, industries, and governmental agencies. Listings for such begin about Christmas time. Many summer employers schedule on-campus interviews through the Student Employment Office.

The **PARENT LOAN (PLUS)** and **SUPPLEMENTAL LOAN (SLS)** are available to those graduate students who are not eligible for need-based financial aid. The PLUS is made by a private lender to the parents of dependent students to assist the student with college expenses. The SLS is made by a private lender to independent students. A parent or independent student may borrow up to \$4,000 per academic year to a maximum of \$20,000.

- Loans are based on the credit worthiness of the borrower.
- The interest rate for each 12-month period is determined by the bond equivalent rate of the 52-week treasury bill auctioned at the final auction held prior to the June 30 preceding the 12-month period, plus 3.25 percent.
- Monthly payments must begin within 60 days of disbursing the loan.
- To locate a participating lender, call the Michigan Higher Education Assistance Authority at (517) 373-0760.

ADULT TUITION LOANS are tuition-only loans for up to \$500.

Eligibility:

- be 21 years of age or older;
- have an annual income of \$15,000 or more;
- have repaid previous loans satisfactorily; and
- be in good academic standing.

For more information on this loan, see a financial aid adviser at the Office of Financial Aid, 403 Pierce Hall.

UNIVERSITY SHORT TERM LOANS (USTL) are available to Eastern Michigan University graduate students for educationally related expenses incurred while attending the University.

The interest rate is 4 percent simple annual interest from the loan date to the due date.

Eligibility:

- be enrolled at the University at the time the funds are released;
- be in good academic standing;
- demonstrate the ability to repay the loan by the due date; and
- have repaid previous USTLs satisfactorily and have no past due obligations owed to the University in excess of \$500.

EMPLOYER TUITION REIMBURSEMENT PLANS are offered by many companies. Graduate students are encouraged to investigate their company's policy. Effective March 1988, the Office of Financial Aid will have a brochure available listing companies which offer some form of tuition reimbursement.

AWARDS AND SCHOLARSHIPS

THE GRADUATE DEANS' AWARD FOR RESEARCH EXCELLENCE is a \$250 cash award made in the fall and winter semesters to reward excellence in on-going or completed research projects.

Currently enrolled Eastern Michigan University graduate students or recent graduates (within one year) are eligible to apply for the award. Part- and full-time students in good academic standing, in all academic disciplines, who have completed a minimum of 15 semester hours, are encouraged to apply.

The major criterion for the award is the demonstration of superior initiative in the student's own research project. Deadlines for application are November 15 for the fall award and March 15 for the winter award. Applications are available in the Graduate Dean's Office, Starkweather Hall.

THE BARTON SCHOLARSHIP is a one-time competitive award of \$500 that is applied to the recipient's tuition fees. Applications will be considered by The Graduate School Scholarship Committee bi-annually for the fall and winter semesters. Applicants (1) must have earned a baccalaureate degree from Eastern Michigan University with no graduate level academic work completed prior to receiving the award; (2) must have a cumulative undergraduate grade point average of 3.5 or better; (3) must become candidates for admission into a graduate academic program at Eastern Michigan University or The University of Michigan prior to submitting the Barton Scholarship application form. Students who wish to pursue their graduate studies at The University of Michigan must submit a completed Graduate Admission Verification Form before consideration can be given to their scholarship application. The deadline for submission of materials for a fall semester award is June 30; for a winter semester award it is November 30.

Applications are available at The Graduate School, Starkweather Hall.

THE ANTON BRENNER SCHOLARSHIP is a one-time competitive award of \$500 which is applied to the recipient's tuition and fees. Applications will be considered by The Graduate School Scholarship Committee for each fall semester. Applicants must (1) have completed at least one full academic semester (spring and summer combined equals one full semester) at EMU and earned at least 10 graduate credit hours toward their master's degree prior to submitting an application for the award; (2) have a cumulative graduate grade point average of 3.5 or better; (3) be enrolled in at least four (4) graduate credit hours during the fall semester for which the scholarship award is granted; (4) submit an application on or before April 15 to be considered for an award the following fall. Applications are available at The Graduate School, Starkweather Hall.

THE GRADUATE SCHOOL POLICIES AND INFORMATION

Organization

The Graduate School administers all graduate education at Eastern Michigan University. The dean serves as the chief executive officer and is charged with providing leadership for development of graduate education, the responsibility for adherence to educational policies and standards and for the effective operation of The Graduate School.

The Graduate School reserves the right to make modifications or changes in the curriculum pattern, admission standards, course content, degree requirements, tuition or fees at any time without advance notice. The information contained in this catalog is not to be considered as a binding contract between The Graduate School and the student.

The Graduate Council, with a membership of 30 persons, serves as a policy recommending body and engages in planning for the orderly development of graduate education. It consists largely of faculty, both elected and appointed, and four graduate students. A current roster may be obtained from the Graduate Dean's Office.

Objectives

The Graduate School at Eastern Michigan University encourages graduate education that establishes or upgrades professional competence by providing programs designed to train students for careers in areas such as teaching, school administration, counseling, business, etc.; that prepares individuals for more advanced academic work, particularly in the academic disciplines; that provides students the knowledge of research techniques and the opportunity for practicing research pertinent to their specific disciplines; and that serves the unique needs of students by providing post-baccalaureate educational opportunities for individuals and groups at convenient geographic locations and in special or individualized modes.

Faculties within all colleges and departments continually strive to meet the educational needs of graduate students. A variety of programs have been authorized and accredited, and others are in the process of development. Although formal graduate study programs have been established in many academic areas, there is sufficient flexibility in each program to enhance the professional goal of each individual student.

Programs

The University offers graduate work leading to several types of academic degrees; doctor of education, specialist in arts, master of arts, master of business administration, master of business education, master of

fine arts, master of individualized studies, master of liberal studies, master of public administration, and master of science. Programs leading to these degrees are administered by the departments in the respective colleges. Departments that offer more than one concentration in their degree programs are identified.

DOCTORAL DEGREE

The doctoral program requirements place emphasis on a comprehensive understanding of and demonstrated competence in a field of knowledge, familiarity with related or cognate disciplines, skills in the use of research techniques, and, therefore, responsibility for dissemination and advancement of knowledge. Meeting the requirements for the doctorate is measured primarily by examinations and by completion and defense of the dissertation.

It should be noted that the policies and procedures for doctoral programming will undergo evolutionary development and have an initial focus on the doctoral program in the Department of Leadership and Counseling.

1. Admission

To be eligible for admission to the Doctoral Program at Eastern Michigan University, the applicant must meet all Graduate School requirements for admission. These might include some or all of the following:

- a. An earned master's degree with a minimum grade point average of 3.5 on a 4.0 scale for full admission. Applicants with grade point averages of 3.3 to 3.5 may be considered for conditional admission. The degree must have been earned from a regionally accredited graduate program. Departments or programs may require higher academic achievements.
- b. A department may require that an applicant submit additional materials for review. These might include: 1) valid teaching certificate, or waiver; 2) proof of teaching and/or administrative experience or equivalent; 3) recommendations by current supervisors familiar with the applicant's professional role; 4) recommendations by university professors who have had an opportunity to observe the student in an academic setting; 5) an autobiographical statement containing information on education, work experience, nature of current position, and personal and professional aspirations.
- c. The University requires the Graduate Record Examination and the applicant is responsible for having scores submitted to The Graduate School at EMU. Minimum scores or percentile rankings on standardized tests are established by individual departments. Some departments also may require the appropriate area examination in addition to the general test.

- d. The department may choose to interview applicants for the doctoral degree.

The applicant's academic record and test scores will be assessed by The Graduate School for admission to the University. The full dossier of materials submitted by the candidate will then be assessed by the department offering the doctoral program for an admissions recommendation. Once the department makes a recommendation, The Graduate School will review the department's admissions decision and will notify the applicant of his/her admissions status.

2. Chronological Outline of Doctoral Work

- a. **Plan of Study:** Following admission, the student and her/his program chairperson confer to construct a program which meets the requirements of the doctoral degree program. The program of study must be approved by the program chairperson and the department head and submitted to the dean of The Graduate School prior to completion of the first 12 semester hours of course work.

Directed Study: Registration in directed study must have advance approval of the student's adviser and advance authorization by The Graduate School. The **Petition and Authorization for Directed Study** form must be approved by the student's adviser, the course instructor, and The Graduate School dean *before registration*. The form must contain all relevant details, including an explicit course outline, rationale for the course, and information about the major academic requirements the student must successfully complete.

- b. **Doctoral Committee:** The committee consists of four persons, two from the doctoral program department, one from the cognate area, and a graduate faculty representative appointed by the dean of The Graduate School. The student selects the faculty member who serves as the chair of the committee. With the assistance of the committee chair, the student then selects two additional graduate faculty members to serve on the committee, one of whom is from the student's cognate area, the other from his/her program area. Typically, the student's program adviser also serves as the chair of the doctoral committee.
- c. **Comprehensive Qualifying Examination:** The student's comprehensive qualifying examination is scheduled after completion of a minimum of thirty (30) hours of graduate work beyond the master's degree. To be admitted to candidate status for the doctoral degree, the student must successfully pass the Comprehensive Qualifying Examination. This written examination is prepared, administered, and evaluated by members of the graduate faculty in the student's major field of study. The examination tests

knowledge in the student's major field, research, and the cognate. The results of the examination are reported to The Graduate School by the department head within one month after it is written.

Failure on the comprehensive qualifying examination will cause the student's overall performance in the program to be reviewed by the doctoral committee in consultation with the department head, which will recommend that either the student be dismissed from the program or will prescribe what must be done before re-examination is appropriate. Re-examination may not take place sooner than six months, but must occur within one year. The results of the second examination are final.

The Comprehensive Qualifying Examination Committee consists of no less than four members who are typically the same persons as the doctoral committee. The membership of this committee, once established, may not, under normal circumstances, be changed until the examination has been passed. When unusual circumstances requiring a committee change occur, the committee chair may recommend a change in the committee membership with the approval of The Graduate School.

- d. **Dissertation Prospectus:** The written prospectus or dissertation proposal is initiated by the student with permission of the doctoral committee after successfully passing the comprehensive qualifying examination. Departments may require an oral defense of the dissertation prospectus in order to avoid problems at the final defense. The following signatures are obtained on the approval page of the prospectus: the department head, the dissertation adviser, chair of the student's doctoral committee, and all other dissertation committee members. The approval is filed with the dean of The Graduate School.
- e. **Final Defense Form and Manuscript Approval:** These are initiated by the student after obtaining all necessary signatures of the dissertation committee members, and the graduate dean at *least one month before the dissertation defense*. The last day for scheduling the dissertation defense is determined each semester by graduation or commencement deadlines.

3. Graduation Requirements

Successful completion of the plan of study, comprehensive qualifying examination, and the dissertation will qualify the candidate to be recommended for graduation. Each student must file for graduation within the dates the University establishes for graduation/commencement.

Grade Point Average: To be recommended for the doctoral degree, the student must maintain a minimum grade point average of 3.5 on a 4.0 scale.

Transfer Credit: Applicable graduate course credit may be accepted from other accredited doctoral institutions and may be included in the candidate's program if approved by the student's doctoral committee, the department head, and the graduate dean. Credits requested for transfer must be consistent with The Graduate School's policy concerning time limits for completing degree requirements (seven years for doctoral programs). A maximum of nine semester hours of graduate transfer credit will be allowed.

Residency Requirement: The doctoral requirement for residence following the master's degree is met by completion of sixteen (16) credit hours of course work, exclusive of dissertation research, during two adjacent semesters. Adjacent semesters are judged to meet the following pattern:

Adjacent Semesters ¹	Credit Hour Enrollment	Residency Requirement
Fall and winter	8 semester hours each	16 credit hours
Winter and spring/summer	8 semester hours each	16 credit hours
Spring/summer and fall	8 semester hours each	16 credit hours

¹Spring/summer terms *together* constitute one term.

Only course work taken on the University's main campus in Ypsilanti satisfies the residency requirement.

Important: The student must be available to participate in all doctoral activities scheduled during this period. *No exceptions will be made to this policy.*

Dissertation Registration: Early consideration of a dissertation topic is suggested. Generally, a student will not be permitted to register for dissertation research credit until she/he has fulfilled all requirements for advancement to candidacy for the doctoral degree. The doctoral dissertation is to be an original piece of work which addresses an intellectually significant problem, makes a valuable contribution, and is publishable. Since group research efforts are common, there is a concern about that part of a total project which is attributable to and identified with the candidate. A multi-authored dissertation is not allowable. Ownership of the research contained in the dissertation must be cleared *before* the project is approved at the prospectus stage. In some cases, with the approval of the student's adviser and The Graduate School, an applicant may be allowed to register for up to (but not more than) four hours of dissertation direction before being admitted to candidacy. The final year of the student's program should properly center on the requirements of the dissertation.

Dissertation Outline: *Prior to initiating research* the doctoral student must prepare The Graduate School form: Doctoral Dissertation Prospectus and Approval. The form is approved by the student's dissertation committee and the department head of the department which offers the degree. A copy of

the prospectus is forwarded to The Graduate School for the dean's approval.

Time Limitations: Students have seven years to complete all requirements for the doctoral degree. This period begins with the end of the semester during which the student was admitted to doctoral study and was completing work toward meeting the requirements for the degree. Credit earned after acceptance as a doctoral applicant may not be more than seven years old at the time the degree is conferred, except when, on the recommendation of an adviser, up to 10 credits previously earned at Eastern Michigan University may be specified for revalidation.

Adviser: The student's doctoral adviser also may serve as the chair of the dissertation committee and, in this role, represents the department in assisting the student in planning a program of study and research. The adviser also has the responsibility for assuring that the student meets degree requirements and, through the approval process, signs the **Plan of Study**, recommends candidacy, guides the student's research, approves the dissertation prospectus, serves on the **comprehensive qualifying examination** committee, and certifies to The Graduate School that the degree requirements have been fulfilled.

Oral Defense of Dissertation: Before the oral presentation and defense of the dissertation are scheduled, the dissertation format and appearance must be acceptable to The Graduate School. The dissertation must be presented to the dissertation committee at least two weeks prior to the scheduled oral presentation and dissertation defense. The committee will certify in writing that the dissertation has been reviewed and approved for the oral presentation and defense.

The oral defense of the dissertation shall be presented by the candidate who shall state the methodology, research, and results of the investigation. Conducted by the candidate's committee, and presided over by the chair of the dissertation committee, it will be publicized in advance to the entire University community by the major department. In the discussion following the presentation of a dissertation lecture, other matters pertaining to the dissertation and preparation of the research may be discussed as they are deemed relevant. The oral defense will be open to the general University community, but questions are generated only by the student's dissertation committee members.

The Doctoral Committee chairperson will obtain signatures from each committee member on the **Oral Defense Approval Form** at the conclusion of the oral defense and file this document at The Graduate School within 24 hours of the completion of the dissertation oral defense.

Three final unbound copies of the dissertation will be submitted to The Graduate School within 14 calendar days after the lecture and oral defense. Graduation

processing will take place upon receipt of these copies.

Graduation: The candidate for the doctoral degree must file an application for graduation not later than the end of the first week of classes during the semester in which he/she expects to complete the requirements for the degree. Consult the academic calendar in the **Graduate Bulletin**. If an application for a degree was filed for a previous semester in which the student did not graduate, a new application is necessary.

DOCTOR OF EDUCATION

Educational Leadership

SPECIALIST'S DEGREES

Educational Leadership

Guidance and Counseling

School Psychology

Special Education

Administration and Supervision

Curriculum and Development

THE CERTIFICATE OF ADVANCED STUDIES IN CURRICULUM AND INSTRUCTION (CASCI)

The Certificate of Advanced Studies in Curriculum and Instruction (CASCI), a 30-hour post-master's program, offers an opportunity for post-master's teachers to select study experiences that are specifically related to their current professional needs. There are no pre-determined course requirements. Advisers approve program choices that teachers make in accordance with their individual desires for professional growth.

CASCI is offered in response to the need for relevant, flexible individualized programs that will enable career teachers to keep abreast of new developments and to respond to the professional challenges in their classrooms and in their school districts.

A teaching certificate, a master's degree from an accredited university, and a minimum of one year's teaching experience are prerequisites to acceptance in the program.

MASTER'S DEGREES

College of Arts and Sciences

Applied Economics

Art

Education

Studio

Biology

Community College Teaching

Ecosystem (Aquatic and Terrestrial)

General Biology

Molecular/Cellular

Physiology

Chemistry

Communication

Oral Interpretation

Public Address

Criminology and Criminal Justice

Development, Trade and Planning

Drama/Theatre for the Young (MA, MFA)

Economics

English

Children's Literature

English Linguistics

Literature

Written Communication

Fine Arts (MFA)

Foreign Languages

French

German

Spanish

General Science

Geography

Cartography and Remote Sensing

Environmental Studies

Land Use Analysis

Physical Geography

Historic Preservation

Administration

Interpretation and Tourism

Planning

History

Language and International Trade

Liberal Studies

Social Studies and American Culture

Women's Studies

Mathematics

Computer Science

Music

Choral Music

Music Education

Music Literature

Music Theory-Literature

Performance

Piano Pedagogy

Physics

Physics Education

Psychology

Clinical

Clinical Behavioral

General

Public Administration

Social Science

Sociology

Family Specialty

Spanish (Bilingual-Bicultural Education)

TESOL (Teaching English to Speakers of Other Languages)

Theatre Arts

Arts Management

Drama/Theatre for the Young

College of Business

Accounting
 Business Administration
 Accounting Information Systems
 Information Systems Management
 Design Information Systems
 Financial Accounting
 Finance
 General Business
 International Business
 Decision Science
 Marketing
 Organization Development
 Human Resource Management
 Tax Accounting
 Information Systems
 Organizational Behavior and Development
 Human Resource Management/Organizational Development

College of Education

Early Childhood Education
 Educational Leadership
 Educational Psychology
 Development and Personality
 Educational Technology
 Research and Evaluation
 Elementary Education
 Guidance and Counseling
 College and Community Personnel
 Community Program
 Community Counseling
 School Counselor Endorsement
 K-12 Curriculum
 Middle School Education
 Physical Education
 Reading
 Secondary School Teaching
 Social Foundations
 Special Education
 Emotionally Impaired
 General
 Hearing Impaired
 Learning Impaired
 Mentally Impaired
 Physically Impaired
 Speech and Language Impaired
 Visually Impaired

College of Health and Human Services

Occupational Therapy
 Human, Environmental and Consumer Resources
 Consumer Resources
 Clothing and Textiles
 Family and Child Development
 Foods and Nutrition
 General Home Economics

College of Technology

Business Education
 Industrial Education
 Industrial Arts
 Industrial-Vocational
 Industrial Technology
 Construction
 Manufacturing
 Liberal Studies
 Technology
 Polymer Technology
 Coatings

MASTER'S DEGREE PROGRAM IN INDIVIDUALIZED STUDIES

The master's 36-hour degree program in individualized studies is designed to serve the needs and interests of mature students who have a minimum of three (3) years of career employment beyond the baccalaureate and whose occupational, vocational or educational goals are not met by other graduate degree programs offered at Eastern Michigan University. This program is structured so as to assure a quality graduate level experience, while making provision for flexibility and innovation in graduate study.

Each applicant is expected to develop a set of specific goals and objectives for the proposed program of study with the assistance of two or more faculty members. The applicant and advisers develop a structured sequence of courses that has academic integrity and that meets the goals and objectives of the program. The resulting proposal and program of study are submitted to a Supervising Committee composed of members of the graduate faculty for review and recommendation. Applicants interested in this program must apply at least six months prior to the enrollment period in which they wish to begin their studies.

For additional information regarding the master's degree program in individualized studies, please contact The Graduate School Office, Starkweather Hall.

GRADUATE CERTIFICATE PROGRAMS**Graduate Certificates**

The graduate certificate programs provide expanded opportunities for those individuals who wish to further their education for personal or career advancement.

Certificates Available

At the present, a graduate certificate program is available in artificial intelligence, gerontology, state and local history, and quality technology. Other certificate programs in computer science, hazardous waste control, African-American studies, acoustical physics, and holistic health care are expected.

Graduate Certificate

The graduate certificate program is for students who have an earned bachelor's degree from an accredited institution of higher education and have an interest in specialized studies but does not require a program as extensive as a master's degree.

Advanced Graduate Certificate

The advanced graduate certificate is designed for students who have earned graduate degrees and are interested in staying current in their fields or gaining expertise in a related area.

Graduate Certificate Admission

Students must satisfy admission requirements of The Graduate School and the department offering the certificate. Students must be admitted to the graduate certificate or advanced graduate certificate program before enrolling in required course work.

Graduate Certificate Requirements

1. Both programs shall consist of at least 12 graduate-level credit hours.
2. Not more than one 400-level course may be used on the Graduate Certificate program.
3. No 400-level course may be used on the Advanced Graduate Certificate.
4. A minimum grade point average of 3.0 ("B") must be achieved to obtain either certificate.
5. Credits earned for the Graduate Certificate or Advanced Graduate Certificate programs may apply, subject to applicability, to a graduate degree.
6. All requirements for either certificate must be completed within three years from the time of first enrollment.

MICHIGAN INTERCOLLEGIATE GRADUATE STUDIES PROGRAMS (MIGS)

The Michigan Council of Graduate Deans offers a guest scholar program, Michigan Intercollegiate Graduate Studies (MIGS), which enables graduate students of Michigan public institutions offering graduate degree programs to take advantage of unique educational opportunities such as special courses, workshops, field experience, and similar experiences. The MIGS program is available at the following member institutions: Andrews University, Central Michigan University, Eastern Michigan University, Grand Valley State University, Michigan State University, Michigan Technological University, Northern Michigan University, Oakland University, Siena Heights College, University of Detroit, University of Michigan, Wayne State University and Western Michigan University. Students interested in additional information should contact The Graduate School Office, Starkweather Hall.

Admission Categories

It should be understood that the admission policies presented are minimum standards and that many departments have established criteria above these minimums. For this reason, applicants for degree admission may have to meet additional requirements established by departments. These requirements often include admission tests, valid teaching certificates, letters of recommendation and/or personal interviews and grade point averages above the minimum established by The Graduate School.

Anyone planning to enroll in graduate level courses must be admitted to The Graduate School through one of the following two admission categories: degree admission or non-degree student status.

For each semester, a final date for accepting completed applications for degree admission is established. Please see procedures for graduate admissions.

ADMISSION REQUIREMENTS

Doctoral Degree (Ed.D.)

For degree admission requirements students are directed to the Doctoral Degree and the Department of Leadership and Counseling sections of this catalog.

Specialist's Degree

A minimum grade point average of 3.3 ("B+") in the master's degree program is required for admission to the specialist's degree. For those departments admitting students into the specialist's degree directly from the bachelor's degree, a minimum undergraduate grade point average of 2.75 is required. Departments may establish standards higher than this minimum.

Master's Degree

Degree admission requires that the applicant hold a bachelor's degree from an accredited college or university and possess a minimum undergraduate grade point average of 2.50 (on a 4.00 basis) or 2.75 in the last half of the undergraduate program. Applicants who do not possess minimum requirements for admission may be granted conditional admission. Conditions of admission must be met prior to beginning core course work for the degree.

TYPES OF ADMISSION

Degree Admission Status:

Degree admission into a master's or Graduate Certificate program requires that the candidate meet both The Graduate School requirements (conferred bachelor's degree and at least a 2.5 GPA or 2.75 GPA in the last half of the undergraduate program) and the departmental admission requirements as stated in The Graduate Catalog. Specialist's degree admission requires a 3.3 GPA in the completed master's program. For doctoral degree admission status see the Doctoral Degree section of this catalog.

Conditional Admission:

Condition 1: Curriculum Deficiencies is a conditional admission for students who meet the degree admission requirements of The Graduate School, but have curricular deficiencies in their undergraduate program and/or other departmental standards and therefore do not meet departmental admission requirements. In such cases, special conditions are noted on the departmental recommendation form and these must be completed prior to gaining degree admission.

Condition 2: Senior Status is a conditional admission granted to candidates completing an undergraduate degree at the end of the current semester and is valid for one enrollment period only. This condition is removed when the student submits an official undergraduate transcript with the baccalaureate degree posted.

Condition 3: English as a Second Language Program is a conditional admission status granted to international non-native speakers of English who scored below the required minimum score in the English proficiency exam (TOEFL and the Test of Written English, or MELAB) and will be required to elect appropriate ESL courses. The ESL courses are determined by the ESL program staff based on the candidate's score and a placement examination. The examination is administered by the English as a Second Language program staff at Eastern Michigan University prior to the beginning of each term.

Non-Degree Admission:

Non-degree students may enroll under this status for any of the semesters or sessions (fall, winter, spring or summer). Except for non-degree *guest students* and those holding non-degree *temporary status*, a non-degree student may enroll for classes semester after semester. There is no limit to the number of hours the student may earn. A student, however, *cannot* earn a degree with non-degree student status. Non-degree students are subject to all course prerequisites. Students can transfer from non-degree student status to degree status if they meet departmental and Graduate School requirements (see Transfer of Credit to Degree Programs from Non-Degree Student Status). **Policy states that a student must complete a minimum of 10 semester hours after admission to the degree program.** Non-degree students can earn a graduate certificate in such programs as artificial intelligence, gerontology, and state and local history.

Credits earned do not automatically apply toward a degree program but are dependent upon admission to The Graduate School, the requirements of the program, recommendation by an adviser and the approval of The Graduate School.

Status 1: Academic Deficiencies is a non-degree admission status granted on the recommendation of the academic department to candidates who **do not meet** the minimum undergraduate grade point average (2.5 GPA) requirement of The Graduate School or the academic department GPA requirements, whichever is higher; or

who have graduated from a non-accredited academic institution; and/or have demonstrated the potential to perform graduate level work at Eastern Michigan University. This type of admission provides students with an opportunity to demonstrate that they can be successful in a graduate program at EMU by completing a minimum of nine and no more than 12 graduate level credit hours specified by the department, while maintaining good academic standing (3.0 GPA). The hours elected as a non-degree admission candidate can only be applied to a graduate degree program upon the recommendation of the coordinator of graduate advising. It should be specifically noted that successful completion of nine and not more than 12 graduate level credit hours with a 3.0 GPA does **not** guarantee, nor does it constitute admission to a graduate degree program.

Status 2: Continuing Certification is a non-degree admission status granted to certified teachers and other professionals in education who explicitly indicate that they do not intend to pursue a graduate degree program but wish to enroll only in graduate level courses to meet continuing certification requirements. The academic courses which are elected via the non-degree admission status do not follow a prescribed graduate degree program and do not earn the student a graduate degree.

Status 3: Continuing Education Division Courses is a non-degree admission status granted to students who enroll in courses through the Division of Continuing Education. Courses taken under this non-degree admission status do not automatically apply to a graduate degree. **Students intending to use graduate level courses offered through the Division of Continuing Education on a degree program must seek formal admission to a graduate degree by completing an admission application and providing The Graduate School with official transcripts. The applicability of the courses to a degree program is subject to acceptance by and recommendation of the department offering the degree, and the approval of The Graduate School.**

Status 4: Personal/Professional Development is a non-degree admission status granted to candidates who wish to enroll in graduate level courses for self-enrichment purposes and/or participate in a graduate certificate/advanced graduate certificate program. Courses taken under this admission status do not automatically apply to a graduate degree at Eastern Michigan University.

Teacher Certification:

Students interested in taking graduate courses for the purpose of teacher certification may do so as non-degree students. A student must be admitted to the College of Education and have achieved a 2.5 grade point average in the baccalaureate degree in order to be admitted to a teacher certification program and obtain a provisional certificate.

Guest Students:

Students who wish to earn graduate credit at Eastern Michigan for transfer to the parent institution may do so as non-degree students. Guest students in the College of Business must meet the standards for regular admission to business programs.

Second Bachelor's Degree:

All students seeking a second bachelor's degree or another undergraduate major/minor must apply to Undergraduate Admissions (400 Pierce Hall, 487-3060). Second bachelor's students are subject to all the rules and regulations governing the undergraduate, including those addressing academic status, probation and dismissal. Furthermore, they are expected to comply with any deadline dates which apply to the undergraduate student.

PROCEDURES FOR GRADUATE ADMISSION**Degree Status:**

Complete and submit the application form to The Graduate School Office. Submit official transcripts of all undergraduate and graduate credit at each institution attended. Transcripts must be in a sealed envelope from the university.

Where necessary, have official scores from national examinations submitted. (Departments requiring test scores state this in The Graduate Catalog.)

Please note the following deadline schedule for receiving all application materials required for admittance to a degree program at Eastern Michigan University:

Fall admission	March 15
Winter admission	September 15
Spring/Summer admission	February 15

Because of the complexity of processing foreign student applications, earlier deadlines have been established for this population. Please contact the Foreign Admissions Office, (313) 487-3061, for these deadlines.

Applications received after the above established deadlines will be moved to the subsequent semester; i.e., an application for fall semester received April 1 will be processed for winter semester.

All documents and supporting data required for admittance become the property of The Graduate School and will **not** be returned to the applicant.

Applicants are not officially admitted to a graduate academic program until they have been notified in writing of acceptance by the dean of The Graduate School.

Non-Degree Student Status

Complete and submit the application form to The Graduate School Office.

Submit official transcripts of all undergraduate and graduate credit at each institution attended. Transcripts must be in a sealed envelope from the university.

Students may enroll for as many enrollment periods as they wish with non-degree student status. Students holding non-degree student status are not eligible to enroll in undergraduate or graduate business courses.

International Students

The Graduate School considers an applicant an international student if either or both of the following are true:

- applicant received a baccalaureate degree from an institution outside the United States;
- applicant currently holds or will hold F-1 (student) or J-1 (exchange visitor) visa status.

For admission, international students must:

- meet the minimum academic requirements for admission to The Graduate School (e.g., a bachelor's degree or its equivalent from an accredited institution);
- submit evidence of proficiency in the English language;
- present a statement of financial responsibility;
- provide two letters of recommendation from administrators or professors in the college or university from which the applicant holds a bachelor's degree; and submit official scores on a standardized test (GRE, GMAT, MAT) if required for admission to the selected degree program.

The Graduate School requires that all international students applying for admission and residing in this country or abroad demonstrate proficiency in the use of the English language. This may be done one of two ways:

1. Taking the Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE).
2. Taking the Michigan English Language Assessment Battery (MELAB) at the English Language Institute, University of Michigan, Ann Arbor, Michigan.

For information on these two tests, write or telephone:

Test of English as a Foreign Language
Education Testing Service
Princeton, New Jersey 08540
Telephone 1-609-921-9000

English Language Institute
University of Michigan
Ann Arbor, Michigan 48109
Telephone 1-312-764-2416

The scores received on the TOEFL or the Michigan English Language Assessment Battery (MELAB), formerly the Michigan Test, must be submitted to The Graduate School office before consideration can be given to the student's application.

English as a Second Language (ESL)

English as a second language (ESL) courses are taught in the Department of Foreign Languages and Bilingual Studies.

Three levels of ESL instruction are offered, intermediate, advanced and academic support, in both fall and winter terms. Only advanced and academic support levels are offered in the combined spring-summer term.

Students admitted with an official (not institutional) score of 80 or above on the Michigan English Language Assessment Battery (MELAB), or a score of 500 or above on the Test of English as a Foreign Language (TOEFL) and a score of 5/6 (determined by departmental requirement) on the Test of Written English (TWE) will not be required to take any ESL courses. They may choose to take an ESL class if they wish to further improve their ability.

Students admitted with a Michigan English Language Assessment Battery (MELAB) score below 80 or a TOEFL score below 500 are required to take the departmental placement test before registration.

This test is usually given the week prior to the beginning of the semester. All students required to take this test must be on campus at that time.

Depending upon the results of the placement test, students will be placed in either part-time or full-time English (two, three, four or five courses of ESL) during their first semester.

Those students taking part-time English will be allowed to register for other University classes. Students placing in full-time English may not take any other University courses until a later semester. Some students may require two consecutive semesters of full-time English before they can register in other courses.

Once placed in ESL courses, students must complete each course with a grade of "C" or better. Successful completion of a course allows the student to move on to the next higher level of that course in the following semester. Students starting below the 400-level must continue to enroll in ESL courses until two 400-level courses are taken. Students must repeat all ESL courses in which they receive a "C-" or below.

When students have successfully completed ESL 412 and ESL 414 or 416, their admission status is changed from conditional to regular. Admission status is based on the first English proficiency score that students send to the University. If a later test results in a higher score, it also should be sent to the Admissions Office. All scores must arrive in the Admissions Office two weeks before the first day of the term.

Failure to enroll in the required ESL courses during the first semester and any required subsequent semesters will result in the cancellation of University enrollment and a possible loss of tuition for that semester.

Regular University academic probation and dismissal policies apply to students who are enrolled in ESL.

Fall Term

Intermediate ESL 210, 212, 214, 216
Advanced ESL 118, 310, 312, 314, 316
Advanced Support ESL 412, 414, 416

Winter Term

Intermediate ESL 210, 212, 214, 216
Advanced ESL 118, 310, 312, 314, 316
Academic Support ESL 412, 414, 416

Spring/Summer Term

Advanced ESL 118, 310, 312, 314, 316
Academic Support ESL 412, 416

The following is a brief description of the ESL courses:

Grammar

ESL 210 Intermediate Grammar continues to teach the basic components of the simple sentence.

ESL 310 Advanced Grammar presents the formation and usage of clauses, the sequence of verb tenses in complex sentences and the more refined uses of English grammar.

Writing

ESL 212 Intermediate Writing focuses on paragraph construction while teaching unity, cohesion and transition.

ESL 312 Advanced Writing teaches rhetorical patterns in composition length papers.

ESL 412 Academic Support Writing continues practice with rhetorical patterns in compositions and guides students through the process of researching, outlining and writing an original research paper.

Reading

ESL 214 Intermediate Reading moves from personal narratives to informational reading in simplified English. Vocabulary developing techniques and reading skills are taught.

ESL 314 Advanced Reading continues to provide practice in reading and analyzing unsimplified passages of greater length and linguistic complexity.

ESL 414 Academic Support Reading promotes reading in specialized fields at professional levels and provides practice in outlining, summarizing and synthesizing ideas from different sources.

Speaking/Listening

ESL 118 Elementary ESL Lab. Must be taken concurrently with ESL 316.

ESL 216 Intermediate Speaking/Listening provides practice in sustained interchange of social conversation and in discreet point listening.

ESL 316 Advanced Speaking/Listening continues to develop conversational skills and prepares students to present short monologues and comprehend short lectures. Must be taken concurrently with ESL 118.

ESL 416 Academic Support Speaking/Listening focuses on academic oral/aural skills; lecture comprehension, note-taking essay exam preparation and group speaking strategies.

All levels of this skill area have accompanying lab work and/or classes.

English for Special Purposes

The Department of Foreign Languages and Bilingual Studies also offers courses for non-native speakers preparing to enter the specialized fields of business and technology. These courses develop language skills necessary for professional settings.

Graduation Requirements

Before receiving a diploma, certain requirements must be fulfilled. It is the student's responsibility to see that all requirements are met.

GRADUATION FEE

A non-refundable graduation fee of \$35 is to be paid when a student makes application for graduation.

APPLICATION FOR GRADUATION

Candidates for graduation must submit to The Graduate School Office a Diploma Application at the time of registration for the semester or session in which they plan to complete requirements for a graduate degree.

Fall registration for December graduation
 Winter registration for April graduation
 Spring registration for June graduation
 Summer registration for August and October graduation

Diploma applications may be obtained in The Graduate School Office; applications also may be found in the Class Schedule Book. The completed application, together with the application fee, should be turned in at the Cashier's Office, Pierce Hall.

Failure to apply for graduation will result in a delay in receiving the degree.

A candidate for graduation who enrolls at another college or university for credit to be transferred to Eastern Michigan University and applied toward meeting degree requirements must submit an official transcript of such credit not later than one month prior to the closing date of the semester in which the degree is to be awarded. Delay of at least one enrollment period in granting the degree will result if transfer credit has not been received by this time. Grade reports and/or letters from instructors will not be accepted in lieu of official transcripts. Students completing their degree work at the close of the summer session should expect to receive their degree verification letter two or three weeks after the close of the session. Special requests for advance verification cannot be honored. The student's degree recommendation letter documents the University's degree verification process and can be used to inform any employer of the date when the student's degree verification can be expected.

GRADE POINT AVERAGE REQUIREMENTS FOR GRADUATION

The grade point average requirement for graduation applies to:

- all graduate credit earned at Eastern Michigan University;
- all graduate credit included in the area of specialization.

Only grades received in courses taken for graduate credit at Eastern Michigan University are used in computing a student's grade point average. Grades received in courses accepted as transfer credits are not included in the grade point average.

With the revised grade point scale that was instituted in fall 1979, some students graduating will have grade points on the permanent record and averages consisting of a mix of the old "A" = 8.0 and the new "A" = 4.0 systems. Questions with respect to calculation and interpretation should be directed to the records supervisor in The Graduate School Office, Starkweather Hall.

CREDIT REQUIREMENTS

The minimum credit requirement for the specialist's degree is 32 hours beyond the master's; the master's degree requires 30 hours. Some programs have credit requirements in excess of these Graduate School minimums. For the doctorate degree credit requirements, see sections on Doctoral Programs and The Department of Leadership and Counseling.

A program of study must be on file in The Graduate School Office by the end of the first enrollment period following degree admission.

COGNATE REQUIREMENT

Cognates are defined as those supportive and complementary courses which are related to the area of concentration and are outside the department and/or college in which the degree is to be earned. Each program of study should include cognates. The number of hours associated with the component (specialist's and master's, usually six) is determined by each department.

For the cognate requirement associated with the specific degree program(s) of interest, see program description and graduation requirement.

COURSE LIMITATIONS

If courses in any of the categories listed below are used to satisfy the requirements of a graduate degree, no more than six hours in that category may be used:

Special Topics - course numbers 590, 591, 592, 679, 680, 681

Independent Study - course numbers 697, 698, 699

Seminar - course numbers 693, 694, 695, 696

Workshop - course numbers 594, 595, 596, 682, 683, 684, 685

Thesis/Final Project - course numbers 690, 691, 692, 790, 791, 792

Correspondence Courses - No more than four hours of approved correspondence courses may be used on a graduate degree; Graduate School approval required; contact Office of Continuing Education for details.

Not more than 12 hours of special topic, independent study, seminar, and workshop courses, in combination, may be used on a graduate program of study.

RESIDENCY REQUIREMENTS

The doctoral requirement for residence following the master's degree is met by the completion of sixteen (16) credit hours of course work, exclusive of dissertation research, during two adjacent semesters. Only course work taken on the University's main campus in Ypsilanti satisfies the residency requirement. Student is directed to read specific department requirements.

For the specialist's degree, at least 16 hours of credit must be earned on the campus in Ypsilanti. It also is expected that one semester or two summer sessions will be spent in full-time work on the campus.

For a master's degree, at least six hours of graduate credit used on a degree program must be earned on campus in Ypsilanti. This requirement also may be met by enrollment in travel-study tours sponsored by Eastern Michigan University and at the facilities at the Kresge Environmental Center.

Enrollment in a Division of Continuing Education course that meets on the campus in Ypsilanti may fulfill this residency requirement.

TIME LIMITATIONS

Students have seven years to complete the requirements for the doctoral degree. For additional information on time limitation policy, read the section on doctoral programs.

All requirements for a specialist's degree are expected to be completed within six calendar years if a master's degree is held at time of first enrollment, and within eight calendar years if a bachelor's degree is held at time of first enrollment. Graduate credit that is more than six/eight years old respectively, prior to the date on which the degree is to be granted, is not counted toward meeting graduation requirements without validation.

All requirements for a master's degree are expected to be completed within six years from the time of first enrollment. It is possible to validate out-of-date credit to be applied toward a degree by the process of examination (validation), depending upon the requirements of the program, recommendation of the adviser, and the approval of The Graduate School.

Graduate students admitted to The Graduate School prior to September 1, 1971, have had the option of applying four hours of out-of-date course work to a degree program without validation. **This option is no**

longer available. As of fall, 1988, all out-of-date credit (no older than 15 years) must be validated if it is to be used on a degree program. For additional information on the policies and procedures governing validation, contact your adviser or The Graduate School.

TRANSFER OF CREDITS TO DEGREE PROGRAMS From Other Institutions

Applicable graduate course credit may be accepted from other accredited doctoral institutions, and may be included in a doctoral candidate's program, if approved by the student's doctoral committee, the department head, and the graduate dean. Credits requested for transfer must be consistent with The Graduate School's policy concerning time limits for completing degree requirements. A maximum of nine semester hours of graduate transfer credit may be allowed on a doctoral program.

Of the total number of credit required for specialist's degree programs, a minimum of 24 hours must be taken at this University; and, for the master's degree program, a minimum of 18 semester hours must be taken at Eastern Michigan University. Any graduate credit transferred must:

- be applicable to the degree program;
- have associated with each course a grade of "B" or higher;
- be viable in terms of the six year time limitation for completion of degree requirements;
- appear on an official graduate transcript from an accredited degree granting institution;
- be upon recommendation of the adviser and the approval of The Graduate School.

Such credits are recorded on the student's permanent record card only when a program of study is on file in The Graduate School. Some departments have specified a more limited transfer credit policy; see individual department.

From Non-Degree Student Status

Students admitted to non-degree student status may apply for admission to a degree program after meeting all special entrance requirements of the academic area of specialization selected. Admission Transfer Request forms are available in The Graduate School Office and must be submitted to that office at least two months prior to the semester or session that transfer is contemplated. A request for admission to a degree program will be approved only upon written recommendation of the coordinator of graduate advising in the area of specialization.

Credits earned while on non-degree student status do not automatically apply to the requirements of a degree program. Transfer of credits depends upon the requirements of the program, the recommendation of the adviser, and the approval of The Graduate School Office. *A student transferring from non-degree student status must complete a minimum of 10 graduate hours after admission to a degree program.*

From Previous Master's Degree

On occasion, individuals may wish to obtain another master's degree. Appropriate credit from a previous master's degree may be applied to the second program under these conditions:

- the degree be in a discipline different from the previous master's degree;
- not more than six semester hours of appropriate credit may be applied.

INDEPENDENT STUDY

Independent study is designed to enable graduate students to pursue academic interests beyond those normally covered in conventional courses. Independent study is structured on a tutorial basis, affording opportunity for student and faculty interaction on a project of joint interest. *No more than six hours of independent study may be used on a degree program.*

Expectations Regarding Instructional Requirements

- A clearly defined proposal for the study is presented by a student and approved by a professor before enrollment.
- Regular student/faculty meetings to monitor progress and to provide assistance are held.
- Evaluation is established on the basis of the completed product.

THESIS

Aside from independent study, more opportunity for the degree student to demonstrate individual initiative and creativity is provided by a number of departments where the writing of the thesis is offered either as an option or as a requirement. Taken toward the end of a student's program of study, it serves as a capstone experience affording an opportunity for the integration of one's specialized subject matter. *No more than six hours of thesis may be used on a degree program.*

Guidelines and requirements governing this activity are available through the departments and The Graduate School.

GENERAL REGULATIONS

Once degree admission to The Graduate School has been granted, but prior to graduation, various policies and procedures regulate the pathway to the degree.

REGISTRATION INFORMATION

Students may not attend classes unless they are properly registered and have paid appropriate fees.

Permit to Register—New students who have satisfied all admission requirements, and returning students who have not been enrolled during one of the four preceding enrollment periods, must obtain a Permit to Register from The Graduate School before attempting to register.

Registration—Graduate Students register for on- and off-campus classes in the Registration Office, Pierce Hall, at times and in such manner as provided for in the class schedules issued each semester or session.

Adviser's Signature on the Enrollment Plan—An adviser's signature is required for students in degree programs in business, economics, geography, hearing impaired, history, industrial education, industrial technology, mathematics, music, psychology, public administration, social foundations, sociology, speech and language impaired. Other students enrolling in either business or industrial education courses also must obtain departmental adviser's signature before registering. Students on degree programs who do not obtain the adviser's signature assume full responsibility for their registrations. *Courses that do not satisfy requirements on the student's program of study will not be applied toward the degree.*

Registration in Undergraduate Courses—Some upper division 400-level undergraduate courses are identified in this catalog as available for graduate credit. Graduate School authorization for graduate credit *must* be obtained by the student before enrolling in these courses.

Some departments make no provision for the use of upper division courses on a graduate degree program; others make only limited use. In no case, however, may the number of upper division courses exceed *nine* semester hours. See Undergraduate Courses for Graduate Credit at the back of each departmental section of this catalog.

Students should consult their department regarding its policy before seeking Graduate School authorization to enroll in upper division courses for graduate credit.

AUDITING COURSES

Graduate students who wish to audit a course must register for audit status and pay the same tuition and fees as for academic credit enrollment. No student may receive academic credit for audited courses. See class schedule for audit deadline.

ACADEMIC LOAD

Twelve hours of graduate credit for the fall or winter semester is the usual full-time load. The usual full-time load for the spring or summer session is six hours.

The recommended academic load for graduate students employed in remunerative work on a full-time basis is six credit hours per semester. Special permission for a program in excess of this must be obtained from the adviser.

Course loads in excess of the 12-13 hour limit for the fall and winter semesters, and eight hours for spring and summer sessions, are not permitted. In addition, a maximum of two courses may be taken during the year through such programs as Adventures in Education (e.g. Petoskey and Traverse City), offered through the Division of Continuing Education.

Since graduate assistantships are granted for the support of students making substantial academic progress, each person holding an assistantship is expected to enroll for a minimum of six credit hours per semester during the period of appointment. For the spring/summer session, two or three hours per session are required. For Title IV programs, veterans' benefits purposes and loan deferment purposes, the following formula is used: *(Please note that per federal requirements, a student must be enrolled in at least four semester hours to be considered a half-time student.)*

With regard to loan deferments, please note credit hours required for full-time student status.

Fall and Winter Semesters

maximum load: 12-13 hours
 full-time student: eight to 12 hours
 half-time student: four to seven hours
 less than half-time student: less than four hours

Spring/Summer Sessions

maximum load: eight hours
 full-time and half-time student: four hours
 less than half-time student: less than four hours

REPEATING COURSES

For a variety of reasons, students sometimes find it desirable to repeat a course. When this occurs, the grade received in the second attempt is substituted for the first in the computation of the student's grade point average. However, the first grade remains on the record. A course may be repeated only once, and then only those courses in which grades of "E," "C-," "C," "C+," or "B-" were received the first time.

UNDERGRADUATE COURSES FOR GRADUATE CREDIT

1. Effective with the winter semester 1983, no 300-level course work is permitted in earning of any graduate degree at Eastern Michigan University. (This will affect new students only and will not be applied retroactively to students admitted prior to winter semester 1983.)
2. Before enrolling in approved 400-level courses, students must (a) obtain recommendation of their adviser; and (b) written permission from The Graduate School. This approval must be obtained no later than three weeks into the semester (fall/winter); *no 400-level courses will be approved for graduate credit after that time.*

COURSE NUMBERING SYSTEM

400-500: For advanced undergraduates and graduate students. Lists of senior level courses available for graduate credit are found toward the end of the departmental sections in the Graduate Catalog. Students must obtain approval of The Graduate School before enroll-

ing for such courses. *To achieve graduate credit for a 400-level course, the student must do work at the graduate level.* The 500-numbered courses are open to advanced undergraduates under existing policies; see Enrollment in Graduate Courses by Advanced Undergraduates.

600: For graduate students only.

700-800: Courses that are utilized on the doctoral and specialist's degree programs and other advanced level graduate work as well as the master's in fine art.

GRADING SYSTEM

The grades used in The Graduate School of the University are listed below together with their description and grade point values.

Grade Point Per Semester Hour	Effective Fall 1979
A Outstanding Performance	4.0
A-	3.7
B+	3.3
B Good Performance	3.0
B-	2.7
C+	2.3
C Inadequate Performance	2.0
C-	1.7
E Failing Performance	

Graduate students' academic records are kept on permanent file in the records division of The Graduate School, Starkweather Hall. Unless there are past due financial obligations, students may get an official transcript of their complete records by requesting them in writing from the Academic Records and Certification Office, 302 Pierce Hall, and upon payment of the transcript fee specified.

Credit/No Credit—The Graduate School awards credit/no credit only in theses, practica, selected field work, selected independent study courses and special cases such as exhibitions in art.

Academic departments may recommend to the graduate dean those appropriate types of courses for inclusion on the approved list of credit/no credit courses. It is not a student's prerogative to elect a course for credit/no credit; only previously designated courses are available for such credit.

To receive credit for a credit/no credit course, a student must perform in a manner equal to the "B" level according to the judgment of the faculty supervising the student's work.

"I" (Incomplete)—An "I" grade is awarded when these conditions prevail: illness or extenuating circumstances beyond the control of the student which have prevented completion of the required components of the course; academic performance for the completion portion of the course was equivalent to a grade of "B" or better.

In such cases, the instructor will provide the student and the department head with a statement of the reason or reasons for the "I" grade and will specify the amount and nature of the work required in order to remove the incomplete.

An "I" grade must be removed within one calendar year from the end of the semester or session in which that grade was issued; one and one-half calendar years from the beginning of the semester of registration for correspondence courses. The time for removal of an "I" may be extended upon written recommendation of the instructor and approval of the graduate dean. An extension will be granted only under unusual circumstances. The initiative for conversion of an "I" to a letter grade rests with the student. If not converted to a letter grade by the end of the one year period, the "I" will remain as a permanent part of the student's academic record.

Incompletes received in thesis type courses are not governed by these regulations.

"W" (Withdrawal)—The grade of "W" will be assigned only when the previously described withdrawal process has been completed. If a student stops attending a class without officially withdrawing, the grade of "E" will be assigned for the course. Requests for a grade change of an unearned "E" to "W" will be accepted no later than the semester following the semester of the grade; i.e., an unearned "E" received in the fall semester must be appealed during the following winter semester. No other requests will be honored.

ATTENDANCE

Students who find it necessary to be absent from classes in order to observe major religious holidays may arrange with their instructors to make up work, including examinations, that they miss as a result of their absence. If satisfactory arrangements cannot be made with the appropriate instructors, students may appeal to the head(s) of the department(s) in which the course(s) is/are offered.

Expectations regarding class attendance should be included in the printed syllabi which instructors distribute at the beginning of the semester.

WITHDRAWAL

Policy and procedures have been established for withdrawal from the University and from individual classes. Because of this, appropriate procedures must be followed; *non-attendance and/or non-payment of tuition does not absolve one of academic and financial responsibility nor does it constitute withdrawal.*

Withdrawal from Individual Classes

First Three Weeks—Students who find it necessary to reduce their academic load may do so as part of the registration adjustment process at the Registration Office.

Fourth Through 10th Week—During this period, a student completes a Request for Withdrawal from Class form in the Registration Office, 302-303 Pierce Hall. The student will receive a grade of "W" in each course if officially withdrawn during this period.

Beginning with the 11th Week—Students may withdraw from individual classes with a grade of "W" for any reason up to one week before the end of the semester, providing the academic performance in each course (graduate/undergraduate) is a grade of "B" or better at the time of withdrawal. Poor academic performance is not recognized as a valid reason for withdrawal. Because of this, students not performing at least at "B" level will be denied permission to withdraw with a grade of "W." Exceptions may be granted when due to extended personal illness, verifiable by a physician's statement, or death in the student's family. Withdrawal forms are obtained from The Graduate School.

Prior to considering withdrawal, a student should consult with the instructor(s). Students *should not* stop attending class until they have received official notification that their withdrawal has been approved. If a student stops attending class without officially withdrawing from the class and does not take the final examination, University policy requires that the instructor assigns a grade of "E" for the course.

Policies governing the refund of tuition and fees are to be found in another section of this catalog.

The class schedules should be consulted for the calendar regulating withdrawals.

See Tuition and Fees section of this catalog for more information.

Withdrawal from All Classes

Students may withdraw from all classes up to one week before the end of the semester (withdraw from the University) for a given enrollment period for any reason and receive grades of "W" for all courses in which they are enrolled.

ACADEMIC PROBATION AND DISMISSAL

Academic Probation

A graduate student (degree/non-degree) is placed on academic probation at the end of the semester in which his/her cumulative grade point average in courses taken for graduate credit at Eastern Michigan University is less than 3.0 ("B" average) based on the student's completion of at least six graduate hours. A graduate student placed on academic probation who does not remove his/her probationary status at the end of the next two periods of enrollment (spring and summer equal one enrollment period) is dismissed from the University for academic reasons.

1. At the end of any semester in which a student's cumulative grade point average falls below a 3.0, he/she is placed on academic probation. A letter is

sent to the student from The Graduate School indicating the probationary status.

2. In the case that a student's cumulative grade point average is still below 3.0 at the end of the subsequent period of enrollment, the student will remain on academic probation.
3. A letter is sent to the student from The Graduate School indicating that enrollment in only one more semester will be allowed.
4. If the student's cumulative grade point average remains below 3.0 at the end of the third semester of probation he/she is dismissed from the University.
5. If at any time a student's cumulative honor points are 15 or more points below those required for a "B" in all completed graduate level courses, the student will be dismissed.

When the student's cumulative grade point average rises to 3.0 or above during any probationary period, the student is removed from academic probation.

Dismissal Process

At the end of the third consecutive enrollment period in which any graduate student has a cumulative grade point average of less than 3.0, the student is dismissed from the University. A letter of dismissal is sent to the student from The Graduate School.

After the dismissal letter is received, the student may appeal the expulsion from The Graduate School and the University by submitting an appeals petition (letter form) for re-entry to the Graduate Dean. This petition should include information that reveals the causes of the student's academic problems, the modifications/changes in the student's individual situation which have occurred and how such will presumably help to rectify the situation; and the student's proposed plan of action to become successful in his/her graduate studies.

Appeal Process

Upon receipt of the appeals petition, it is the responsibility of the dean of The Graduate School to uphold the dismissal decision, re-admit the student, or initiate the appeals process with the **Academic Dismissal Appeals Board**. A review by the board may not be considered for dismissed students with a GPA of less than 2.0 unless extreme circumstances can be documented.

- A. The dean of The Graduate School will notify the chairperson of the Academic Dismissal Appeals Board.
- B. An appeals hearing is to be held within 30 days of the receipt of the appeals petition.
- C. The appeals hearing will adhere to the following guidelines:
 1. A detailed record shall be kept of the hearing, preferably a taped sound recording.
 2. The student shall be permitted an adviser. The adviser must be a member of the University community (staff, full-time faculty or student.)
 3. The hearing shall be open unless the student requests a closed hearing.

4. The student may call witnesses and the Academic Dismissal Appeals Board may question the witnesses called.
5. All deliberations of the Academic Dismissal Appeals Board will be in executive sessions.

The Academic Dismissal Appeals Board

- A. The Academic Dismissal Appeals Board, which will service for one year, will consist of a chairperson and four members.
 1. The chairperson will be selected by the dean of The Graduate School from the membership of the Graduate Council.
 2. Two members of the Academic Dismissal Appeals Board will be selected by the dean of The Graduate School from the membership of the graduate faculty.
 3. Two members of the Academic Dismissal Appeals Board will be selected by the dean of The Graduate School from the student members of the Graduate Council
- B. The chairperson does not have voting rights except in the case of a split decision.

Additional Appeals

An additional appeal will be considered only if new evidence is presented.

REGARDING TEACHER CERTIFICATION

Students who seek provisional teacher certification must be admitted to the College of Education. Among the prerequisites for admission are a minimum overall undergraduate GPA of at least 2.50, a minimum GPA of 2.50 in the teaching major or three minors, and a letter of recommendation. In addition, applicants are required to take the Pre-Professional Skills Test. More information concerning admission standards and procedures is available in the College of Education Admissions Office, 101 Boone Hall.

Most questions regarding teacher certification should be directed to:

Provisional Certificate:
Office of the Registrar
Third Floor, Pierce Hall
Ypsilanti, Michigan 48197
(313) 487-4111

For Continuing or Renewal Certificate:
Nancy Dahl
Office of Continuing Certification
101 Boone Hall
Ypsilanti, Michigan 48197
(313) 487-0275

In some unusual circumstances, it may be desirable to seek information from the state office. In those cases, write to:
Michigan State Department of Education
Teacher Education and Certification Section
Box 30008
Lansing, Michigan 48909

Provisional Certification

(Students who hold a bachelor's degree)

Graduates of Michigan Institutions: A graduate of a Michigan institution must be recommended for certification by a Michigan teacher training institution. The certificate will usually be recommended by the institution offering the professional education program. When part of the professional education courses were completed at the degree granting institution, it may be advantageous to ask that institution to make the recommendation and approve the balance of requirements being completed at Eastern Michigan University.

Graduates of Approved Out-of-State Teacher Training Institutions:

1. Persons with an earned bachelor's degree who hold a currently valid teaching certificate in another state based on the completion of an approved teacher education program in that state may apply to the Michigan Department of Education for a Michigan provisional certificate. Application forms are available in the Office of the Registrar, Third Floor, Pierce Hall.
2. Persons who have completed 12 or more academic credit hours on an education program at a regionally accredited out-of-state institution approved for teacher training may apply to the Michigan Department of Education for an evaluation of their credentials to ascertain what courses they will need to take to qualify for a Michigan provisional certificate. Application forms are available in the Office of the Registrar.

The student then applies for admission to The Graduate School and submits a copy of the plan of work prepared by the Michigan Department of Education to The Graduate Office.

3. Graduates who do not fit category 1. or 2. must be recommended for certification by a Michigan teacher training institution. Although requirements vary depending upon the curriculum pursued, the basic minimum requirement for recommendation for certification is normally 30 semester hours work with Eastern Michigan University. Information about the specific requirements for certification may be obtained from the EMU Office of the Registrar. A written plan of work will be provided on request, following admission to The Graduate School.

Elementary endorsement to secondary certificate or secondary endorsement to elementary certificate: Persons seeking to qualify for an additional provisional certificate must complete a minimum of 18 semester hours of credit following the first certificate, that includes the appropriate methods courses and three hours of student teaching or proof of two years teaching experience appropriate to the level of certification sought. A written plan of work will be provided by the Office of the

Registrar on request, following admission to The Graduate School.

Additional teaching majors and/or minors: Persons who seek to broaden their teaching qualifications by the addition of majors and minors do so by completing the course work required.

1. Minor—a minimum of 20 hours in courses appropriate to the pure minor or 24 hours in a group minor.
Major—a minimum of 30 hours in courses appropriate to the pure major or 36 hours for a group major.
2. Students should contact the Office of the Registrar for information about course requirements. Departmental approval may also be required. A copy of the approved plan of study must be placed on file in The Graduate School.

Renewal of a Provisional Certificate: Persons whose provisional certificate has been permitted to expire without having acquired three years of successful teaching experience may renew the certificate by completing 10 hours of approved credit after the issuance of the provisional certificate. Application to renew an expired certificate is made through an approved teacher training institution where a person has earned at least 10 semester hours of approved credit following the provisional certificate as part of the 18 hour planned program for a continuing certificate.

Certification in special fields: (art education, physical education, industrial education, special education, home economics, music, reading): Persons seeking certification in a special field should contact the Office of the Registrar for more information. A copy of the approved plan of work must be placed on file in that office.

Continuing Certification*

Persons may apply for the continuing certificate upon completion of three years of successful teaching and 18 semester hours of credit on a planned program after the date of issuance of the Michigan provisional certificate. The recommendation must be made by the Michigan teacher training institution which approved the 18 semester hour planned program and where the majority of the 18 semester hours was earned.

Students on master's degree programs appropriate to K-12 education may apply the first 18 hours of a degree program toward this requirement. For this reason, applicants seeking continuing certification are strongly urged to seek admission to a degree program.

All other students who wish to be recommended for continuing certification by Eastern Michigan University should have a plan of work approved by the Office of Continuing Certification (College of Education, 101 Boone Hall) on file in The Graduate School Office before enrollment in course.

**To qualify for the continuing certificate, all candidates must also satisfy the Michigan Department of Education's reading methods requirements (effective July 1, 1983).*

Use of Credit

Undergraduate credit earned to satisfy the requirements for a provisional certificate cannot apply to a graduate degree.

Graduate credit earned for a provisional certificate cannot apply to the requirements of a continuing certificate.

Graduate credit earned for a continuing certificate may apply to a graduate degree only if it meets the requirements of a degree program, the recommendation of the adviser and approval of The Graduate School.

SCHOOL PERSONNEL CERTIFICATES AND PERMIT FEES

Public Act 339 of 1988 authorizes collection of fees for teacher certification in Michigan in accordance with the fee schedule listed below. In addition, the Administrative Rules Governing the Certification of Michigan Teachers requires that an application for certification must be made no later than five years after credit requirements have been met. Payment of the fee is a certificate requirement that must be met prior to the issuance of your Michigan teaching certificate.

Effective October 18, 1988	In-State Applicant	Out of State Applicant
Original Application Fee		
Provisional teaching certificate	\$125	\$175
Continuing teaching certificate	125	
Professional teaching certificate	125	
Vocational temporary authorization	125	
Full vocational authorization	125	
Occupational education certificate	125	
Additional teaching certificate endorsement		50
Substitute teacher permit	25	
Full-year teacher permit	25	
Emergency permit	25	
Annual vocational authorization	25	
Duplicate certificate or authorization	10	
School psychologist certificate	125	175
Parent cooperative preschool certificate		50
Temporary special education approval		50
School administrator certificate for persons eligible for certificate on July 1, 1988	75	
School administrator certificate for persons eligible for certificate after July 1, 1988	125	175
School administrator endorsement	50	
School admission permit	125	
Renewal or Reinstatement Application Fee		
Provisional teaching certificate	75	
Continuing teaching certificate	125	
Continuing teaching certificate reinstatement	50	
Professional teaching certificate	125	

Vocational temporary authorization	75
Full vocational authorization	125
Occupational education certificate	125
School psychologist certificate	125
School administrator	125

ENROLLMENT IN GRADUATE COURSES BY ADVANCED UNDERGRADUATES

An advanced undergraduate student in good academic standing at Eastern Michigan University may register for specified graduate courses if recommended by the adviser and approved by the dean of The Graduate School. Credit so earned may be used for only one of two purposes:

- to meet the requirements of the baccalaureate degree, and thus receive undergraduate credit;
- to apply towards a master's degree, and thus receive graduate credit.

To be eligible to enroll in graduate courses, an undergraduate student must meet one of two criteria:

1. hold undergraduate admission at Eastern Michigan University, must have completed 76 hours or more of undergraduate credit, and have a cumulative grade point average of 2.5 in all course work taken at Eastern Michigan University;
2. hold undergraduate admission at Eastern Michigan University, be a participant in the undergraduate Honors Program, have completed at least 55 hours of undergraduate credit and have written authorization from the director of the Eastern Michigan University Honors Program.
3. Before enrolling in approved 500-level courses, students must obtain written permission from The Graduate School, Starkweather Hall.

Approval must be obtained no later than three weeks into the semester (fall/winter); there will be no 500-level courses approved for undergraduate students after that time.

Advanced undergraduate students who hold guest or special admission as an undergraduate are not eligible to enroll in graduate courses.

Permission to enroll in graduate courses as an advanced undergraduate should not prolong the completion of the undergraduate degree requirements.

The maximum number of graduate hours that can be taken as an advanced undergraduate student is 15. See Course Numbering System for level of courses available to advanced undergraduates.

There are several restrictions on the use of credit earned in graduate courses by advanced undergraduates:

- Permission to take graduate courses does not represent degree admission to The Graduate School.
- Students desiring to continue graduate study and utilize the graduate credit earned in courses taken as an advanced undergraduate must apply and meet all requirements for admission to The Graduate School and degree program.

- Graduate courses taken for either undergraduate or graduate credit and taken prior to receipt of a provisional teaching certificate cannot be used to satisfy any requirement of the continuing certificate.

Advanced undergraduates are not permitted to enroll in 600 and above numbered courses.

Division of Continuing Education

Dean: Paul T. McKelvey
319 Goodison Hall (313) 487-0407

Today, more than ever before, Eastern Michigan University is realizing its responsibility to offer its services and facilities to the community at large and to the non-traditional student. For many years, the Office of Continuing Education, formerly the Division of Field Services, has maintained extensive in-service programs for students unable to complete their education on Eastern's campus and for employed individuals desiring to further their education. The program is expanding greatly at this time. In addition, the campus is open to the public for conferences, both academic and non-academic, for adult education courses, lecture series and training programs. Faculty members and other trained personnel are available for lectures and consultation services to clubs, organizations, and school systems.

The Office of Continuing Education welcomes inquiries about its program as well as suggestions for other services it might offer. Interested persons should contact the dean of Continuing Education, 319 Goodison Hall, Ypsilanti, MI 48197, (313) 487-0407.

CORRESPONDENCE COURSES

Students granted non-degree student status and/or accepted for admission to a graduate program at Eastern Michigan University may enroll in correspondence courses for graduate credit. Acceptance of correspondence courses for application toward degree credit shall be at the discretion of The Graduate School and the graduate program adviser. At the present time, ENG G402 Modern English Syntax and ENG G421 The History of the English Language are the only two courses available through correspondence for graduate credit. Unlike a regular campus course, a student has six months to complete a correspondence course. Students desiring to apply correspondence credit toward a degree shall obtain written approval from their program adviser and The Graduate School before enrolling in the course. *Under no circumstances may more than four hours of correspondence credit be applied toward a graduate degree.* Contact Michael McPhillips, (313) 487-1081.

IN-SERVICE COURSES

The Office of Continuing Education offers credit courses at 45 centers in 14 counties throughout southeastern Michigan. These classes are undergraduate and graduate courses usually conducted by regular instruc-

tors of Eastern Michigan University. At present, the classes are in virtually all fields connected with education, but an increasing number of courses in other disciplines are being offered to meet students' needs. A list of the courses offered for fall and winter semesters and spring and summer sessions may be obtained from the Office of Continuing Education. Students who hold bachelor's degrees register in off-campus classes under one of the following categories: Eastern Michigan University degree student status or non-degree student status; see Non-Degree Admission Status.

ACADEMIC PROGRAMS ABROAD

Director: George J. Klein

The Office of Academic Programs Abroad offers many study-abroad options. These educational tours offer credit in many different fields including art, education, foreign language, history, marketing, and political science.

Benefits:

- Earn college credit while exploring the world
 - Link classroom information with real world experience
 - Improve foreign language skills
 - Develop self-reliance and maturity
 - Establish friendships with people from other countries
- Become sensitive to cultural differences and other perspectives
- Use financial aid to help fund your educational tour, if you are eligible

Eligibility:

- Recommendation from faculty
- Evidence of seriousness of purposes
- Good academic standing

For more information, contact the director at 333 Goodison, (313) 487-2424.

WEEKEND UNIVERSITY

Eastern Michigan University's Weekend University is primarily designed for students who want to continue with their learning experience, but find weekday or evening classes inconvenient or incompatible with career/family responsibilities. The Weekend University Office is located in room 321, Goodison Hall. The office is open Saturdays from 8:00 a.m. until 1:30 p.m.; Arthur Hoover is the coordinator and may be reached at (313) 487-0407.

World College

Interim Director: Ray Schaub
Interim Associate Director: Geoffrey M. Voght
307 Goodison (313) 487-4448

The World College serves as a facilitating and coordinating center for international education at Eastern Michigan University, promoting the development of global perspectives in University curricula. It is a center for international relations, developing and maintaining

liaison with foreign academic institutions, governments and businesses, and serving as a clearing-house of information and referrals regarding internationally focused projects, programs, events, and activities in which EMU is involved.

The World College is not a traditional college in the sense of an academic unit having its own departments and courses, with faculty members teaching classes in academic programs with majors and degrees. Rather, it is a collegium of individuals committed to assisting EMU faculty and staff in internationalizing their own expertise and their offerings to students. The emphasis is on collaboration and cooperation with all members of the University community who seek ways to broaden their awareness and understanding of the world outside the borders of our country.

The three-fold mission of the World College is:

1. to increase educational opportunities for students and faculty abroad;
2. to develop contract-based international programs with educational agencies, governments and corporations both in the U. S. and abroad; and
3. to provide on-campus international learning opportunities for students, and on-campus international professional resources and development opportunities for faculty.

CAMPUS RESOURCES

COATINGS RESEARCH INSTITUTE

Director: **John C. Graham**

The Coatings Research Institute (CRI) was established in 1985 with the assistance of a major grant (totalling nearly one million dollars) from the state of Michigan. The institute is designed to conduct research and development efforts under contract to industry and government, and represents the formalization of research activities that started in 1980.

The CRI comprises a fully-equipped laboratory capable of conducting research ranging from the synthesis and modification of polymers to the formulation and testing of paints. Including the adjacent PRA (Paint Research Associates), the coatings effort comprises a microcosm of a large paint company including research, development, analysis, formulation, and testing capabilities.

The coatings effort occupies 12 thousand square feet of facilities with an additional three thousand under construction to house the Emissions Evaluation Center.

HURON INSTITUTE FOR CORPORATE LEARNING

Eastern Michigan University is in the forefront of education nationally, providing life-long learning opportunities in both its credit and non-credit programs. The Huron Institute for Corporate Learning delivers creative, cutting edge, learning opportunities to

non-traditional, life-long learners. It is the non-credit service provider for Eastern Michigan University. The classroom setting for these tailored learning experiences can be the shop floor or the boardroom, whatever best fits the required learning outcome. It's highly innovative, professional staff have at their disposal creative tools and mechanisms that facilitate and enhance opportunities for Eastern's faculty to link with the educational needs of the public and private sectors. Conversely, the institute provides entities in the public and private sectors with easy access to University and national resources that can be utilized to meet continually changing, distinctive educational needs.

CENTER FOR CORPORATE LEARNING (CENTER FOR ORGANIZATIONAL RISK REDUCTION—CORR)

Director: **Walter DiMontova**

119 Pearl Street
Ypsilanti, MI 48197
(313) 487-2977

The Center for Corporate Learning (formerly CORR) is dedicated to providing innovative training, educational, research, development, and consulting services in all areas of risk reduction, including occupational health and safety, risk assessment and reduction, worker skills assessment and enhancement, and improved labor-management relations.

The center's programs help large organizations assess, prepare for and respond to risks to their physical, financial, and human resources especially as a result of rapid technological or organizational change.

The new and evolving economic and industrial environment required that industries develop alternative ways of organizing work, training employees, increasing labor/management cooperation, and ensuring workplace safety. The center's services are direct responses to these needs.

The center provides a broad spectrum of practical and professional services to large organizations from business, industry, and labor.

It has conducted a wide range of interventions for some of the largest corporations and labor organizations in the Midwest in areas such as emergency spill response and incident command for hazardous materials incidents, worker skills evaluation and enrichment, auto industry education, and the analysis of lifelong learning centers.

CENTER FOR ENTREPRENEURSHIP

Director: **Patricia Weber**

121 Pearl Street
Ypsilanti, MI 48197
(313) 487-0225

The Center for Entrepreneurship was established on January 1, 1986 to provide training and build a network of peer support for entrepreneurs and heads of high-growth companies. Its services are based on a founda-

tion of applied research designed to increase the knowledge of entrepreneurship and growth management.

The primary purpose of the center is to increase the number and success rate of Michigan entrepreneurs and of entrepreneurially-managed firms. The desired result is the stimulation of job creation as well as greater job stability in Michigan's economy.

The key objectives of the Center for Entrepreneurship are:

- to provide entrepreneurs and growth managers with success tools and skills;
- to foster public recognition and understanding of the achievements and accomplishments of entrepreneurs; and
- to foster interest in and appreciation of entrepreneurship among our youth.

Talented entrepreneurs cannot be created by universities. But they can be helped to be more successful if trained in the use of the tools and skills required to run a growing business. The center is a vehicle for helping to develop and disseminate these tools and skills.

CENTER FOR PUBLIC SERVICE (INSTITUTE FOR COMMUNITY AND REGIONAL DEVELOPMENT—ICARD)

Director: **Charles M. Monsma**
3075 Washtenaw Avenue
Ypsilanti, MI 48197
(313) 487-0243

The Center for Public Service's (formerly ICARD) purpose is to make the expertise and capabilities of the University available to governments, community agencies and businesses. It is part of an overall effort by Eastern Michigan to establish a closer working relationship with the communities it serves and to aid them in meeting their needs and in solving their problems.

Eastern Michigan University, through the Center for Public Service, can provide expertise and resources for the identification of problems, the assessment of needs, and the development of solutions in a wide variety of settings. By drawing upon University-wide resources for project development and implementation, faculty, staff, and students with appropriate skills and experience are brought together from a variety of disciplines.

Areas of emphasis include economic development and environmental quality concerns.

Economic development projects include the center's *Regional Economic Forecasts for Michigan*, available on a subscription basis, and *Michigan Economic Developments*, a semiannual newsletter available free of charge. Individual projects are contracted with local communities and businesses and focus on economic analysis, management evaluation, and training programs.

Under a grant from the Kellogg Foundation, the center has established the Southeast Regional Center for Groundwater Education in Michigan. The SER-GEM Center is part of a state-wide network which provides a

wide range of services related to protecting groundwater resources.

CENTER FOR QUALITY (CORPORATE SERVICES)

Director: **Beth VanVoorhees**
3075 Washtenaw Avenue
Ypsilanti, MI 48197
(313) 476-2259

The Center for Quality has been providing training and consulting in the quality sciences since 1983. More than 20,000 individuals from approximately 4,000 companies have participated in Eastern Michigan University sponsored programs. The Center for Quality sponsors an open enrollment seminar series. The program content for seminars is reviewed and updated regularly to ensure its appropriateness to current approaches to quality science applications. The instructors are seasoned trainers with extensive industrial experience. Some specific examples of the available programs are:

- Statistical Process Control
 - Control Plans and Process Capability
 - Design of Experiments
 - Failure Mode/Effects Analysis
 - Machine Acceptance Criteria
 - Measure System Assessment (Gage R&R)
 - Planning and Managing Change for Continuous Improvement
 - Quality Function Deployment
 - Quality Improvement Opportunities (Cost of Quality)
 - Quality Operating Systems
- Team Dynamics

The Center for Quality also contracts with companies to provide on-site training and consulting. Selected companies include Ford Motor Company, General Motors, ALCOA, Lectron, Raychem, IBM, Thomas and Betts, UAW/Ford, UAW/Chrysler, Evelth Mines, and Esso Petroleum. The following are general forms of educational and training programs and services provided:

- Content-Specific Training Programs
- Training Materials and System Development
- Consulting Services for Training Development
- Basic Skills Enhancement
- JIT Inventory Systems
- Computer Training Programs and Facilities

The center also assists companies in the determination of training needs and the evaluation of training programs.

CHILD DEVELOPMENT LABORATORY

Director: **Judy Williston**
Assistant Director: **Phyllis Young**
209-213 Rackham (313) 487-0286

The Child Development Laboratory is the University's demonstration preschool for instruction and research. The laboratory classrooms are staffed and op-

erated under the auspices of the Department of Human, Environmental and Consumer Resources.

The purpose of the center is to provide comprehensive developmental programs for approximately 100 community-area children each year while also offering credit-producing and non-credit opportunities to approximately 350 University students. The children served are from three to five years of age and are enrolled in four half-day programs. Infants, toddlers, and two-year-olds attend on a semi-regular basis as University courses are scheduled.

Students enrolled in beginning courses learn to apply principles of growth and learning to individual children and groups of young children in 12 laboratory classes. Students in advanced child development, administration, and supervision learn to apply their knowledge to the management of preschool and child development centers.

The director and assistant director oversee the administration of the programs for the children and instruct the University students. Students are directed by staff lab supervisors and graduate assistants in child/family development. The laboratory was accredited by the National Academy of Early Childhood Programs in July 1987.

THE HURON CENTER

1275 Huron Street
Ypsilanti, MI 48197

The Eastern Michigan University Huron Center, a \$36.1 million complex, consists of a 38,000-square-foot Corporate Education Center, an adjoining 243-room Radisson Resort Hotel situated on a bluff overlooking an 18-hole championship golf course and Ford Lake in Ypsilanti Township. The hotel is owned by Huron Shores Limited Partnership with Radisson as the franchise and is managed by Motel Hotel Management in Dallas, Texas. The Corporate Education Center (CEC) and Huron Golf Club are owned and operated by EMU. The CEC and Huron Golf Club were built without using any of the University's general fund, which contains such revenues as student tuition. Along with Eastern Michigan University and MHM, included in the Huron Center "team," are the City of Ypsilanti, Ypsilanti Township, and the Joint Ypsilanti Recreation Organization; other team members that have given grants and contributions to the project are the state of Michigan, Huron Shores Limited Partnership, Morgan Mitsubishi Development Company, General Motors, Ford Motor Company, Chrysler Corporation, Michigan Bell, Michigan Consolidated Gas, and many others.

The idea for the Huron Center was the result of a recognized need for non-traditional educational programs in business and industry. With that recognition, the idea of a Corporate Education Center for contract learning programs materialized.

CORPORATE EDUCATION CENTER

Director: **Marcia D. Harrison-Harris**
1275 Huron Street
Ypsilanti, MI 48197 (313) 487-0600

The primary objective of the CEC is to provide seminar and meeting space with all the amenities a company would need to put on a first-class conference for both the public and private sectors. The CEC provides training and consulting to organizations ranging from local government agencies to multi-national Fortune 500 companies. While the CEC's services extend nationwide and globally, the focus is on training and consulting within the Great Lakes region. Both EMU faculty and non-University personnel are utilized to help meet training needs.

The state-of-the-art Corporate Education Center features two auditoriums with seating capacity of 100 and 150, the larger with U.N.-style continuous writing surfaces; audio/visual systems; an executive boardroom; six conference rooms, each seating 50; four seminar rooms, each seating 25; a computer lab with 25 workstations; a multi-use reception area, break-out space and an outdoor court area for informal gatherings.

Features of the eight-story **Radisson Resort Hotel** include luxury rooms with king-sized beds and a parlor seating area, a two-story lobby space with a view of the golf course and lake-front, a bar on the lobby level seating 225, outdoor terrace dining, four meeting rooms each with a seating capacity of 50, an indoor pool with large south-facing windows overlooking the golf course and lake, and an 8,000-square-foot ballroom with a lunch and dinner seating capacity of 800.

The **Huron Golf Club**, a par 72 course, is situated on 132 acres surrounding the Corporate Education Center and the Radisson Hotel. There is a driving range and clubhouse. The clubhouse has a grill and beverage area, spacious men's and women's locker rooms and a large separate banquet facility.

INSTITUTE FOR THE STUDY OF CHILDREN AND FAMILIES

Director: **Patricia Ryan**
Associate Director: **Bruce Warren**
102 King Hall (313) 487-0372

The Institute for the Study of Children and Families was established by the Board of Regents of Eastern Michigan University for the purpose of providing focus and support to the study of children and families.

Within the focus of the institute are research, development projects, non-credit educational activities, and consultations that are concerned with the determinates and/or consequences of childhood or family life. The institute promotes and encourages the interdisciplinary study of children and families. This reflects the institute philosophy that advancement of knowledge about children and families takes place only by the cooperative

interaction and exchange of ideas by faculty and staff from throughout the University.

In addition to encouraging interdisciplinary involvement, various opportunities exist for undergraduate and graduate students who have interest in research or demonstration projects relating to children and families. This cooperative interaction extends beyond the University to other organizations, agencies and institutions.

Examples of institute-sponsored programs include the National Foster Care Education Program, Behavioral Medicine, and the Contemporary Parenting Education Program. Cooperative efforts also are exemplified by workshops sponsored with other University departments dealing with cultural diversity and home/school interaction. For further information, phone 487-0372, or come to the office at 102 King Hall.

LEARNING RESOURCES AND TECHNOLOGIES (University Library, Media Services and Instructional Support Center)

Dean: **Morell E. Boone**

Library Department Head: **Sandra G. Yee**

Interim Associate Dean: **George Grimes**

Learning Resources and Technologies, housed in the University library building, includes three major units; the University Library, the Media Services Center, and the Instructional Support Center. Its major purpose is to provide the services, collections, facilities, and equipment to support the University's instructional programs.

The Library is essential to the instructional programs of the University. It houses more than 550,000 volumes, 168,000 government documents and 500,000 microforms. Books, bound and current periodicals, and microforms are organized by a subject divisional system in three major areas: education and psychology, humanities and social sciences, and science and technology.

Special collections include an **Instructional Materials Center** in conjunction with the educational and psychology holdings, a map library in the science and technology unit, government documents rooms, faculty and student seminar rooms, typing and microform viewing rooms, and a center for copying paper and microform materials. Reserve reading materials assigned for use in course work may be checked out at the Access Services Desk. Each library unit maintains pamphlet files for ephemeral materials, such as newspaper clippings and pamphlets.

A **Library Orientation Office** (Room 214) provides an active orientation program designed to acquaint all students with basic and subject-oriented resources. Library instruction is given progressively to prepare students for life-long learning after their formal education has been completed.

The Media Services Center, on the first floor of the library, assists departments and/or faculty in integrating media within their instructional programs. Con-

sultation is usually followed by the selection of appropriate existing media and/or production of original media to achieve educational goals.

The center is responsible for the purchase, storage, and circulation of non-print materials, which includes films and video cassette recordings. Other services include providing the equipment required to utilize the non-print materials, a pool of audio-visual machines to check out, preview rooms for viewing video materials, and a campus instructional television system that makes available portable recording and playback units.

The center is equipped to produce charts, graphs, photographic slides, mounted and laminated materials, and overhead visuals.

The Instructional Support Center (Room 102) provides individual and group assistance to registered students with a well-equipped facility, including an expanded microcomputer laboratory. Through these services, students receive not only tutoring assistance for classes, but also training to master academic skills. Such instruction ranges from the development of basic reading, writing, or study abilities to the mastery of more specialized foreign language or computer skills. More specifically, the Instructional Support Center offers:

1. Free tutoring in a variety of basic areas (current schedules are posted in Room 102).
2. Individualized academic assistance.
3. Workshops, such as test-taking, vocabulary-building, and time management, to enhance and sharpen students' academic success skills.
4. Audio-tape recordings and phono discs with available stereo and video equipment for personal use or class assignment.
5. A foreign language laboratory equipped with audio-aural assignments for students taking classes in the Department of Foreign Languages and Bilingual Studies.
6. Microcomputers currently used for direct support of instruction and a growing library of self-help software and instructor-generated materials for use by individual students.

The LOEX (Library Orientation/Instruction Exchange) Clearinghouse, a national office collecting and sharing data and materials on teaching library skills, was established at Eastern Michigan University 10 years ago and currently provides services to more than 2,000 U.S. libraries.

The CIC (Center for Instructional Computing), housed in Room 215, is a microcomputer development center for use by faculty.

MICHIGAN CONSUMER EDUCATION CENTER

Director: **Rosella Bannister**

207 Rackham (313) 487-2292

The Michigan Consumer Education Center, established in 1973, is a state-wide professional development center in consumer and economic education. Its objectives are to provide:

- program development services, including courses, conferences, and publications for educators;
- consultant and cooperative activities with education, business, labor, government, clergy, and community consumer organizations;
- a clearinghouse for educational resources in consumer and economic education.

The center's programs are interdisciplinary in focus, involving faculty from all colleges within the University. Among the center's patrons are students and faculty at this and other universities, classroom teachers (elementary through adult), and government, clergy, and community groups.

The center houses the nation's leading collection of consumer education resources. A 1982 center publication, *Classification of Concepts in Consumer Education*, is distributed internationally for use by educators in program planning and curriculum development.

The center maintains networks with leaders in consumer affairs at the local, state and national levels through advisory groups, newsletters, and professional associations and is an affiliated center of the Joint Council on Economic Education.

OFFICES OF PUBLIC INFORMATION AND UNIVERSITY PUBLICATIONS

Associate Director, Public Information: **Susan Bairley**

Associate Director, University Publications: **Sue McKenzie**

Public Information

18E Welch Hall (487-4400)

University Publications

Lower Level, Dining Commons #1 (487-0366)

The **Offices of Public Information and University Publications** encompass the University news bureau and the University photographer. Staff members offer professional assistance and counsel to the campus community in public relations and media relations.

The **news bureau** is the focal point for all contact with the news media. University events and activities are publicized through this office, and inquiries of reporters generally are directed here. The news bureau also coordinates internal campus communication and is responsible for *Focus EMU*, a weekly bulletin for faculty and staff. For daily calendar events, call the News Information Line: 487-2460.

The **University photographer** provides black and white and color photographs and slides for news and sports releases, slide shows, displays, and various publications.

University publications are produced through the **University Publications Office**, located in the lower level of Dining Commons #1. Complete editorial, design, typesetting, copying, and printing services are available to University departments, faculty, staff, and students.

UNIVERSITY COMPUTING

Executive Director: **Vacant**

First Floor, Pray-Harrod (313) 487-3141

Under an executive director of University Computing, access to a VAX 650, VAX 11/785 and many microcomputers is available. Time sharing systems with unrestricted use are available to faculty, students, and administrative offices.

Low to high speed printers, 150 computer terminals and 10 graphics terminals are placed at strategic locations around campus. Optical scanning equipment also is used for tests, course evaluations and research.

Students can develop skills from computer literacy to undergraduate and graduate computer science majors and minors.

LIST OF CATALOG ABBREVIATIONS

ACC	Accounting
AMU	Applied Music
ANT	Anthropology
AST	Astronomy
ATGSB	Admission Test for Graduate Study in Business
ATH	Athletic
BE	Business Education
BIL	Bilingual
BIO	Biology
BOT	Botany
CEN	Courses in English
CEC	Corporate Education Center
CHM	Chemistry
CLEP	College Level Examination Program
CLS	Clinical Laboratory Services
CSC	Computer Science
CTA	Communication/Theatre Arts
CUR	Curriculum
CWS	College Work Study
DAN	Dance
ECO	Economics
EDL	Educational Leadership
EDM	Educational Media
EDP	Educational Psychology
EDT	Educational Technology
EFL	English as a Foreign Language
EMU	Eastern Michigan University
ENG	English
ESL	English as a Second Language
FA	Fine Art
FCSP	Family and Children's Services Programs
FIN	Finance
FLA	Foreign Language
FRN	French
GA	Graduate Assistant
G&C	Guidance and Counseling
GEO	Geography
GER	German
GES	Geography of Earth Science
GHP	Historic Preservation

GLG	Geology
GMAT	Graduate Management Admission Test
GNP	Gross National Product
GPA	Grade Point Average
GRE	Graduate Record Examination
GRT	Gerontology
HAD	Health Administration
HEC	Human, Environmental and Consumer Resources
HED	Health Education
HIS	History
HPER&D	Health, Physical Education, Recreation and Dance
HRM/OD	Human Resource Management/Organizational Development
I	Incomplete
IDT	Interdisciplinary Technology
IE	Industrial Education
IT	Industrial Technology
KATS	Campus Antenna Television System
KITS	Campus Instructional Television System
LAW	Law
LIN	Linguistics
LIT	Literature
MA	Master of Arts
MAT	Miller Analogies Test
MBA	Master of Business Administration
MBE	Master of Business Education
MELAB	Michigan English Language Assessment Battery
MFA	Master of Fine Arts
MGT	Management
MIC	Microbiology
MKT	Marketing
MLS	Master of Liberal Studies
MPA	Master of Public Administration
MS	Master of Science
MSA	Master of Science in Accounting
MSIS	Master of Computer-Based Information Systems
MTH	Mathematics
MUS	Music
NDSL	National Direct Student Loan
ORD	Office of Research Development
ORI	Operations Research and Information Systems
OT	Occupational Therapy
PED	Physical Education
PHI	Philosophy
PHY	Physics
PLS	Political Science
Prereq	Prerequisite
PSY	Psychology
RDG	Reading
REC	Recreation
RES	Real Estate
SEI	Special Education-Emotionally Impaired
SEM	Semester

SFD	Social Foundations
SGN	Special Education-General Courses
SHI	Special Education-Hearing Impaired
SLD	Special Education-Learning Disabilities
SLI	Special Education-Speech and Language Impaired
SMI	Special Education-Mentally Impaired
SPA	Specialist in Arts
SPI	Special Education-Physically and Otherwise Impaired
SPN	Spanish
SOC	Sociology
SWK	Social Work
TESOL	Teaching English to Speakers of Other Languages (Program)
TOEFL	Test of English as a Foreign Language
TSL	Teaching English to Speakers of Other Languages (Courses)
TV	Television
TWE	Test of Written English
W	Withdrawal
WMS	Women's Studies
ZOO	Zoology

DEPARTMENTS OF INSTRUCTION

The courses here listed are those which have been authorized in accordance with policies approved by the Graduate Council. Class schedules must be consulted for courses to be offered during a given semester or term since the frequency of offering of each course is determined by the department as program needs dictate, with no assurance that a given course will be offered every year. The requirements as stated in the departmental summaries are designed to serve as a guide to program planning and are subject to specific determination and consultation with the department adviser.

COLLEGE OF ARTS AND SCIENCES

DEAN: Barry Fish
411 Pray-Harrold
487-4344

DEPARTMENTS

Art
Biology
Chemistry
Communication and Theatre Arts
Computer Science
Economics
English Language and Literature
Foreign Languages and Bilingual Studies
Geography and Geology
History and Philosophy
Mathematics
Music
Physics and Astronomy
Political Science
Psychology
Sociology, Anthropology and Criminology
Women's Studies

ART

John E. Van Haren
 Department Head
 Ford Hall
 487-1268

David Sharp
 Coordinator of Advising
 Ford Hall
 487-0465

Gretchen Otto
 Art Education Adviser
 Ford Hall
 487-3388

The Art Department offers three programs leading to the master's degree: the master of fine arts, the master of arts (art education), and the master of arts (studio). Concentrations leading to the master of arts (M.A.) degree are offered in art education and studio art. The 60-hour master of fine arts (M.F.A.) degree has a residential requirement. See degree requirements.

ADMISSION REQUIREMENTS

International students must have a score of 80 or above on the MELAB (Michigan English Language Assessment Battery) or 500 or above on the TOEFL (Test of English as a Foreign Language).

Master of Fine Arts

As a prerequisite for admission, the master of fine arts degree applicant must have an undergraduate degree, with a major in art, from an accredited institution and must meet degree admission standards of The Graduate School. Application for entering the M.F.A. program involves the following three steps:

1. Send an application for admission to graduate status, supported by official transcripts of all undergraduate and graduate credit at each institution attended, to Graduate School Admissions, Starkweather Hall, Eastern Michigan University, Ypsilanti, MI 48197.
2. Send an application for admission to the M.F.A. program to: Coordinator, M.F.A. Program, Art Department.
3. Have three letters of recommendation sent to coordinator, and send a portfolio of 10-15 color slides and/or photographs of recent work. (Applicants in three-dimensional disciplines may submit multiple views of examples.)

Applications received in the Art Department by March 15 for fall semester and by November 1 for winter semester will be given priority. Late applications are acceptable and will be considered as studio space permits. Please note that each semester a final date for accepting completed applications for degree admission

is established by The Graduate School. Please contact The Graduate School (313-487-3400) for this information.

Master of Arts (Art Education)

Application for graduate work in art education should be made to The Graduate School, Starkweather Hall, Eastern Michigan University. The requirements are a minimum of 34 semester hours of art education and studio art with a minimum 2.8 grade point average in these classes. In addition, each student will be evaluated on the basis of a portfolio submitted to the Art Department. The portfolio will be in the form of at least 10-15 slides presented in a clear plastic holder. All slides should be individually labeled and identified. Applicants should also submit a letter of purpose outlining aspirations in graduate work. Each applicant is expected to hold a teaching certificate for the teaching of art.

Master of Arts (Studio)

This degree is designed for those seeking an advanced degree in studio art.

Applications for admission should be sent to The Graduate School, Starkweather Hall, Eastern Michigan University. An undergraduate degree with a major in art is required, with a minimum grade point average of 2.8 in art classes. A portfolio of 10-15 slides and/or photographs is required. Send portfolio to: Coordinator, M.A. Program, Art Department, Eastern Michigan University. Label each slide with name, title of work, medium or media, size, and date of completion. A student may be required, after review by the M.A. Committee, to make up deficiencies at the undergraduate level.

DEGREE REQUIREMENTS

The graduate adviser will meet with each student to construct a program of study. The master of fine arts program requires a minimum of 60 semester hours beyond the bachelor's degree. The master of arts (art education) program requires a minimum of 30 semester hours beyond the bachelor's degree. The master of arts (studio) requires a minimum of 30 semester hours beyond the bachelor's degree. The Art Department offers concentrations in drawing, graphic design, painting, printmaking, photography, sculpture, ceramics, jewelry, textiles, multimedia, and watercolor.

Master of Fine Arts

1. Two years of residence required.
2. At the end of the first year, the work of each M.F.A. student will be reviewed by the M.F.A. Committee. The student is allowed either to continue or is formally asked to withdraw from the program.
3. Course requirements:
 FA 630 Graduate Studio (9)
 FA 631 Graduate Studio (9)
 FA 695 Seminar in Contemporary Ideas in Art (3)
 FA 696 Seminar in Contemporary Ideas in Art (3)

FA 732 Graduate Studio (9)
 FA 733 Graduate Thesis and Exhibition (8)
 FA 734 Oral Defense (2)
 Electives in Art (5)
 Art History (6)
 Cognate courses (6) chosen in consultation with the adviser; maximum of six credit hours transferable.
 Total (60)
(Cognate and elective hours may be grouped to form a minor with prior approval of the adviser.)

Master of Art (Art Education)

The M.A. degree is designed for those currently teaching or those who have fulfilled the Art Certificate requirements. An emphasis is placed on discipline-based art education, which consists of aesthetics, art history, art criticism, and art production.

Ten hours of graduate art education must be selected, through advisement by art education faculty, in the following manner:

Six to eight hours from the following courses;

- FA 694 Seminar in Art Education (2)
- FA 504 Aesthetic Education (2)
- FA 505 Curriculum Development (2)
- * FA 506 ARTAG (Art for the Talented and Gifted) (2)
- * FA 507 Studio Connections in Art Education (2)
- * FA 508 Research in Art Education (2)

Two to four hours from the following courses to complete a required thesis or paper:

- * FA 691 Thesis (2)
- * FA 698 Paper of Publishable or Distributable Quality (2)
- * *These courses may be repeated if appropriate.*

Graduate credit from the area of art education (theory and practice) earned more than six years prior to the date on which the degree was granted may not be applied to meet the graduate requirements.

The selection of a thesis or paper option should reflect an appropriate art education area and is subject to approval by the graduate coordinator or adviser in art education.

Fourteen hours in Studio/Art History

If a student wishes to have an exhibition in conjunction with their art education studies, they are subject to a 10-hour review of their studio concentration.

Six hours as Cognate Courses

Selected from art and/or other areas in consultation with the adviser.

Total program hours (30)

Master of Arts (Studio)

Fine Arts Courses (24)

Minimum of 14 hours in an area of concentration (major).

Minimum of 10 hours outside major area (may be grouped to form a minor with adviser's approval).

Cognate Courses (6)

Selected from art and/or other areas in consultation with the adviser. Must include FA 428 Seminar in Modern Art for graduate credit. (A written thesis is optional; two hours credit given with adviser's approval).

Total (30)

THE DEGREE

The student should follow closely The Graduate School requirements for "Application for Diploma."

If the degree program includes a final exhibition of work, it is necessary to apply for gallery space one semester prior to the proposed exhibition.

Further information about these programs may be obtained from the Art Department.

ART COURSES

FA 500 Photography. Two sem hours
 Advanced studio courses in photography. Based on background and need of students. Designed for graduate students not majoring in photography.
Prereq: Departmental permission.

FA 501 Art Education. Two sem hours
(Formerly Art Education Workshop)
 This course is primarily designed for the classroom teacher. A variety of media, applicable to classroom utilization, will be employed with an emphasis in innovative selections such as film making, batik, weaving and other three dimensional activities. Special problems and independent research may be arranged within the format of the class. *Not open to students who have a major in art.*

FA 504 Aesthetic Education Two sem hours
(DBAE).
(Formerly Elementary Art Studio)
 This course provides an opportunity to explore and research the four components of Discipline-Based Art Education. Emphasis will be placed on aesthetics, its connections with art education, and its relationship to general education.

- FA 505 Curriculum Development (Art Education).** **Two sem hours**
(Formerly Two-D Studio)
Fundamentals of curriculum development and an interdisciplinary approach within the confines of Discipline-Based Art Education (DBAE) for developing and implementing the four components of Discipline-Based Art Education (DBAE) into our school's art programs.
- FA 506 ARTAG (Art for Talented and Gifted).** **Two sem hours**
(Formerly Two-D Studio)
A workshop course involving interaction of students as teachers with elementary and junior high students from area schools. Focus will be on a unit of study in art using Discipline-Based Art Education.
- FA 507 Studio Connections in Art Education.** **Two sem hours**
(Formerly Crafts Studio)
A course designed to help students strengthen their skills in developing units of study for both two-dimensional and three-dimensional art areas using the components of Discipline-Based Art Education.
- FA 508 Research in Art Education.** **Two sem hours**
(Formerly Crafts Studio)
A course used by the student for individual research to further their studies in art education and to share this information with their peers.
- FA 520 Drawing.** **Two sem hours**
Advanced studio course in drawing. *Art majors only.*
- FA 530 Art History.** **Two sem hours**
Advanced course in art history. *Art majors only.*
- FA 540 Jewelry.** **Two sem hours**
Advanced studio course in jewelry. *Art majors only.*
- FA 550 Printmaking.** **Two sem hours**
Advanced studio course in graphics. *Art majors only.*
- FA 555 Textiles.** **Two sem hours**
Advanced studio course in textiles. *Art majors only.*
- FA 560 Watercolor.** **Two sem hours**
Advanced studio course in watercolor. *Art majors only.*
- FA 570 Sculpture.** **Two sem hours**
Advanced studio course in sculpture. *Art majors only.*
- FA 580 Painting.** **Two sem hours**
Advanced studio course in oil painting. *Art majors only.*
- FA 590, 591, 592 Special Topics.** **One, two and three sem hours**
Prereq: Departmental permission.
- FA 595 Workshop in Art.** **Two sem hours**
A workshop in art history focusing on personal observation of the visual arts of a particular area.
Prereq: Departmental permission.
- FA 596 Workshop in Art. (Formerly FA 595)** **Three sem hours**
A workshop in art education and/or art history focusing on personal observation of the visual arts of a particular area.
Prereq: Departmental permission.
- FA 600 Photography I.** **One sem hour**
Advanced studio courses in photography. Based on background and need of students.
Prereq: Departmental permission.
- FA 601 Photography II.** **Two sem hours**
Advanced studio course in photography. Based on background and need of students. This course allows the student a more intense photographic experience than FA 600 Photography I.
Prereq: Departmental permission.
- FA 602 Photography III.** **Three sem hours**
Advanced studio course in photography. Based on background and need of students. This course allows the student a more intense photographic experience than FA 601 Photography II.
Prereq: Departmental permission.
- FA 603 Photography IV.** **Four sem hours**
Advanced studio course in photography. Based on background and need of students. This course allows the student a more intense photographic experience than FA 602 Photography III.
Prereq: Departmental permission.
- FA 604 Photography V.** **Four sem hours**
Advanced studio course in photography. Based on background and need of students. This course allows the student a more intense photographic experience than FA 603 Photography IV.
Prereq: Departmental permission.
- FA 610, 611, 612 Ceramics.** **One, two and three sem hours**
Advanced studio courses in ceramics. Based on background and need of the student. *Graduate majors only.*
- FA 620, 621, 622 Drawing.** **One, two and three sem hours**
Advanced studio courses in drawing. Based on background and need of the student. *Graduate majors only.*

FA 630 Graduate Studio. **Nine sem hours**
The first of the four graduate studio courses leading to the M.F.A. degree. Course is conducted on a one-to-one basis. Instructor is selected for the student for this first course upon his/her acceptance into the program by the Graduate Acceptance Committee. *M.F.A. candidates only.*

Prereq: Departmental permission.

FA 631 Graduate Studio. **Nine sem hours**
The second of the four graduate studio courses leading to the M.F.A. degree. Instructor to be selected by the student from the M.F.A. faculty. *M.F.A. candidates only.*

Prereq: Departmental permission.

FA 640, 641, 642 Jewelry. **One, two and three sem hours**

Advanced studio courses in jewelry. Based on background and need of the student. *Graduate majors only.*

FA 650, 651, 652 Printmaking. **One, two and three sem hours**

Advanced studio courses in graphics. Based on background and need of the student. *Graduate majors only.*

FA 655, 656, 657 Textiles. **One, two and three sem hours**
Advanced studio course in textiles. Based on background and need of the student. *Graduate majors only.*

FA 660, 661, 662 Watercolor. **One, two and three sem hours**
Advanced studio courses in watercolor. Based on background and need of the student. *Graduate majors only.*

FA 665, 666, 667, 668 Painting. **One, two, three and four sem hours**
(Formerly FA 680, 681, 682)

Advanced studio courses in oil painting. Based on background and need of the student. *Graduate majors only.*

FA 670, 671, 672 Sculpture. **One, two and three sem hours**
Advanced studio courses in sculpture. Based on background and need of the student. *Graduate majors only.*

FA 679, 680, 681 Special Topics. **One, two and three sem hours**
Prereq: Departmental permission.

FA 694 Seminar in Art Education. **Two sem hours**
(Formerly FA 596)
Art education seminar involving research to enhance the class lectures and discussion concerning the subject of art's relativity to art education.

FA 695, 696 Seminar in Contemporary Ideas. **Three sem hours each**
(Formerly FA 634, 635)

A two semester seminar sequence for all master of fine arts degree candidates dealing with in-depth questions and problems in 20th-century art. Discussions will be supplemented with slides, films and the presentation of papers. *Open to M.F.A. candidates only.*

Prereq: Departmental permission.

FA 697, 698, 699 Independent Study. **One, two and three sem hours**
(Formerly FA 597, 598, 599)

Prereq: Departmental permission.

FA 732 Graduate Studio. **Nine sem hours**
(Formerly FA 632)

The third of the four graduate studio courses leading to the M.F.A. degree. Instructor to be selected by the student from the M.F.A. faculty. *M.F.A. candidates only.*

Prereq: Departmental permission.

FA 733 Graduate Thesis and Exhibition. **Eight sem hours**
(Formerly FA 633)

A culmination of the three sequential graduate studio courses. The ideas developed in these courses result in a body of work that comprises the graduate exhibition. A written thesis is optional. An oral defense of the ideas presented in the exhibition is required. The University reserves the right to retain work from the graduate exhibition to be added to the EMU exhibition to be added to the EMU collection. A set of 35mm slides of all the works in the exhibition will be taken by the M.F.A. candidate and will become part of the Art Department files. *Must be taken concurrently with FA 734 Oral Defense. M.F.A. candidates only.*

Prereq: Departmental permission.

FA 734 Oral Defense. **Two sem hours**
A course conducted by the adviser in each area of concentration. Individual conferences, reading assignments and slides increase understanding of the art context of the candidate's work. *Must be taken concurrently with FA 733 Graduate Thesis and Exhibition. M.F.A. candidates only.*

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit and applied on the department's degree program. A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree. See the undergraduate catalog for course descriptions.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- FA 406 Printmaking (3)
- FA 408 Ceramics (3)
- FA 409 Advanced Photographic Imagery (3)
- FA 410 Metal Casting Techniques (3)
- FA 412 Sculpture (3)
- FA 413 Painting (3)
- FA 414 Painting-Watercolor II (3)
- FA 419 Life Drawing (3)
- FA 421 History of Oriental Art (3)
- FA 422 Chinese and Japanese Art History (3)
- FA 423 Painting-Watercolor III (3)
- FA 424 Painting-Watercolor IV (3)
- FA 426 Medieval Art History (3)
- FA 427 Baroque Art (3)
- FA 428 Seminar Modern Art (2)
- FA 429 History of American Architecture (3)
- FA 432 Drawing III (3)
- FA 433 Color Theory (3)
- FA 436 Women in Art (3)
- FA 439 Life Drawing (3)
- FA 440 History of Contemporary Art II (3)
- FA 441 Studies in Clays and Glazes (3)
- FA 443 Jewelry (3)
- FA 455 Textiles (3)
- FA 460 Advanced Graphic Design (3)
- FA 462 Advanced Illustrations (3)
- FA 464 Corporate Identity and Graphic Systems (3)
- FA 479 Special Topics: Art Education (3)
- FA 479 Special Topics: Art History (3)
- FA 479 Special Topics: Advanced Two-D Studio (3)
- FA 479 Special Topics: Advanced Three-D Studio (3)
- FA 480 Painting (3)
- FA 481 Painting (3)
- FA 487 Cooperative Education (3)

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
FA 504	X			
FA 505			X	X
FA 507		X		X
FA 630	X			
FA 631	X			
FA 694	X			
FA 695	X			
FA 696	X			
FA 732	X			
FA 733	X			

BIOLOGY

William E. Fennel
 Department Head
 316 Mark Jefferson
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Coordinator of Advising
 316 Mark Jefferson
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DEGREE PROGRAMS OFFERED

The Biology Department offers a master of science degree program with concentrations in general biology, ecosystem biology (aquatic and terrestrial), physiology, and community college biology teaching. There is a new graduate concentration in biology: molecular/cellular biology.

Graduate assistantships are usually available. All applicants for admission to the biology master of science program are encouraged to apply for an assistantship. The department believes that the experience in teaching and research gained as a graduate assistant is a valuable part of the graduate program in biology for those whom we can accommodate in these positions.

Not offered by the Biology Department but including some work in biology is the master of science in general science administered by the Physics Department. For information, see Physics Department listing.

ADMISSION REQUIREMENTS

All concentrations on the biology master's program share the same general admission requirements:

1. bachelor's degree;
2. a minimum of 20 semester hours in biology (normally 30 hours) to include course work in genetics and physiology with at least seven hours each in botany and zoology;
3. one year of college chemistry;
4. an academic record of "B" (3.0) or better during the junior and senior years;
5. meet Graduate School degree admission requirements; and
6. submit to the Biology Department a completed departmental admission form and two recommendations.

Students deficient in one or more of the above admission requirements may be granted conditional admission subject to removing deficiencies while beginning a graduate program. Hours earned in deficiency courses may not apply toward degree requirements. Special admission requirements in some areas of concentration are included under the objectives of that area of concentration.

DEGREE PROGRAM DESCRIPTION

The master of science in biology program is designed to provide all students with a broad background of knowledge, scientific skills and attitudes. At the same time, the Department of Biology recognizes an obligation to provide for the needs of different student objectives in taking our graduate program. To accommodate such diverse needs as research experience, internships and specialized course work, each student is required, by the end of the first semester after admission to the degree program, to develop a personalized program of studies in consultation with the student's own faculty Guidance Committee. This must be approved and kept on file by the graduate coordinator.

A minimum of 30-34 credit hours of graduate work is required on the various programs. The programs must specify at least 24-25 hours of course work in the Biology Department and typically five to six hours of cognate credits to be taken outside the department. Courses on the program must be so distributed as to ensure that the combined undergraduate and graduate experiences of the student will include a minimum of 12 hours in biology, 10 hours in zoology and 10 hours in botany. Microbiology courses may be substituted for some of the botany hours in meeting this requirement. Two credit hours in the Biology Department seminar courses are required on all programs. Requests for changes to the approved program must be submitted to the graduate coordinator with the written approval of the student's Guidance Committee.

Two alternative plans are available for completion of Graduation Requirements: Plan A, with thesis, or Plan B, which requires a culminating experience specifically described below in lieu of a thesis.

Plan A: In addition to the requirements common to both plans, as described above, candidates must successfully complete an original investigation with approval of, and supervision by, their Guidance Committee (Thesis Committee). They must submit a report on this research, written in a manner suitable for publication and approved in detail by their Guidance Committee, and must successfully defend this thesis in an oral final examination. A maximum of four credit hours may be earned for thesis research.

Plan B: In addition to the requirements common to both plans, candidates in the concentrations in general biology and physiology must successfully complete three hours of credit in either a practicum (BIO 686, BIO 687, BIO 688) or in courses in biological research techniques or instrumentation, and three credit hours in BIO 697, BIO 698, or BIO 699 Independent Study. At least two of these hours must involve laboratory research work. Using the skill gained in these courses, they must prepare a written report on the results of their findings in independent study. This report must be approved by their Guidance Committee and be presented orally in an approved biology seminar setting.

Candidates in the community college biology teaching concentration do not need to follow Plan A or Plan B requirements but must complete a practicum and an internship in community college teaching (BIO 686 and BIO 689).

Candidates in the ecosystem biology concentration must complete a total of three hours of credit in practicum in ecosystem biology (BIO 686, BIO 687, BIO 688) or an approved equivalent and a total of three hours of credit in BIO 697, BIO 698, BIO 699 Independent Study. They must satisfactorily complete the required written report in each of these courses and report orally on their own contribution to the practicum research program in an approved biology seminar setting. With the approval and supervision of their Guidance Committee, three hours of research participation in a cooperative education course may be substituted for the three hours of practicum research.

ADVISING

Students, at the time of their admission to the biology program, will be given temporary advising by the graduate coordinator or the principal adviser in their selected area of concentration or by the Graduate Committee. Courses approved for the first semester during the initial advising period will count on the student's permanent program of study.

Students are responsible for forming a permanent Guidance Committee and developing a permanent program approved by that committee before registering for their second semester. Beyond the first semester, if no approved program of study is on file, courses taken, whether initially approved or not, are not binding on the Guidance Committee for inclusion on the student's final permanent program.

The Guidance Committee for Plan A students will include at least three graduate faculty members of the Biology Department. The chairperson is usually selected by the student. The other two members are then chosen by the chairperson in consultation with the student. Additional members may be added from inside or outside the department by agreement between the chairperson and the student.

The Guidance Committee for all Plan B students will consist of the principal graduate adviser for the selected area of concentration, who, in consultation with the student, will prepare the student's program; and the graduate coordinator, who must also sign and approve the program. The student will have the option of selecting a third member of the Guidance Committee from the graduate faculty.

The Graduate Committee serves as the Guidance Committee for Plan B students in the general biology and the community college biology teaching areas of concentration and for students who do not indicate an area of specialization when first admitted. They may also serve initially to advise Plan A students, establishing a tentative program of study, until the student establishes his/her permanent Guidance (thesis) Committee.

AREAS OF CONCENTRATION, OBJECTIVES, AND GRADUATION REQUIREMENTS

General Biology

This program is designed to provide the additional background in biology appropriate for secondary teachers, and for students entering a variety of doctoral programs in biology.

Graduation Requirements: See Degree Program Description above. In addition to the general requirements, the combined undergraduate and graduate course work must include genetics, physiology, ecology and one taxonomic field course. Principal adviser: *the graduate coordinator and the Graduate Committee.*

Molecular and Cellular Biology

This program will prepare students to pursue research and teaching careers in molecular and cellular biology.

Additional admission requirements:

1. one year of general biology or its equivalent replaces seven credit hours each in botany and zoology;
2. a structural or developmental biology course;
3. a course in biochemistry with laboratory;
4. a course in physical chemistry and a course in microbiology are highly recommended;
5. a full year of physics;
6. two semesters of calculus or equivalent; and
7. one statistics course.

Graduation Requirements: This concentration requires a minimum of 34 credit hours of graduate work. In addition to the general requirements, combined undergraduate and graduate course work must include a course in molecular genetics, cell biology, developmental biology, immunobiology with laboratory and nine-11 hours of electives selected from an approved list. Principal adviser: *the graduate coordinator and the Graduate Committee.*

Community College Biology Teaching

This program is designed to prepare students specifically for the professional teaching of biology at the community college level.

Graduation Requirements: In addition to the general requirements, the undergraduate and graduate course work must include: botany and zoology (or equivalents), genetics, general physiology, two seminars in biology, a botany field course, a zoology field course, human anatomy and physiology, general microbiology and a microbiology techniques, one additional techniques course from (BIO 413, 415, 516), ecology, biometry (or a computer course), at least one additional graduate level course in zoology and one in botany or microbiology, practicum and internship in CCBT, two-to-six hours of cognates and approved electives to total a

minimum 30 graduate credit hours. Principal adviser: *Professor Paul W. Milske.*

Ecosystem Biology

The graduate program in ecosystem biology is designed to prepare research personnel, capable of contributing to the understanding and solution of environmental problems, for careers with government agencies or private companies concerned with the protection or management of either, or both, aquatic and terrestrial ecosystems. Emphasis is placed on the development of taxonomic expertise, field and laboratory methods, and skill in organizing and analyzing data. As an integral part of the program, students will gain experience in the quantitative assessment of alternative environmental decisions within the ecosystem framework, and in presenting written and oral reports. Students may choose to emphasize either aquatic or terrestrial ecosystems in their individual programs.

Graduation Requirements: In addition to the general requirements, the combined undergraduate and graduate course work must include botany, zoology or equivalent, physiology, general ecology, biometry, genetics, three taxonomic field courses (one botanical and one zoological, and the third in either botany or zoology), and at least three courses from among limnology, stream ecology, wetland ecosystems, terrestrial ecosystems, and systems ecology. The two required seminars must be in ecosystem biology. Plan A students must take two hours of independent study plus four hours of thesis research. Plan B students only must include three hours of practicum in ecosystem biology plus three hours of independent study, at least one hour of which must accompany the practicum. The concentration requires a minimum of 32 semester hours, 26 in the Biology Department and at least six hours of cognates. Students who do not have credit for a course in general ecology as an undergraduate must complete a 36 semester hour program, including BIO 524 General Ecology. Principal advisers: *Dr. Gary L. Hannan and Dr. Robert K. Neely.*

Physiology

This program is designed to prepare students for technical, teaching, clinical or research careers in physiology. Individually prepared programs of study are designed to provide, in conjunction with the undergraduate background, a balance of physiological concepts and analytical methods at both the cellular and organismal levels as demonstrated in at least two of the following areas: vertebrate physiology; invertebrate physiology; plant physiology; and microbial physiology.

Additional admission requirement: one year of college physics.

Graduation Requirements: In addition to the general requirements, combined undergraduate and graduate course work must include one year physics, botany, zoology or equivalent, general or cell physiology, two of

the following: vertebrate physiology, plant physiology, microbial physiology, invertebrate physiology (others approved by physiology adviser). Total must include a minimum of 12 hours of 500- and 600-level courses selected from those listed below. Principal adviser: *Dr. Merlyn C. Minick.*

ZOO 536	Vertebrate Tissues: Structure and Function (3)
ZOO 548	Functional Biology of the Invertebrates (3)
ZOO 671	Comparative Vertebrate Physiology (4)
ZOO 672	Endocrinology (4)
ZOO 673	Membrane Physiology (2)
ZOO 674	Animal Cell Physiology Laboratory (1)
BIO 540	Cell Biology (3)
BOT 640	Plant Cell Physiology (2)

FACILITIES

The Biology Department shares the Mark Jefferson Science Building with the Departments of Chemistry and Psychology. This building provides modern teaching laboratories and classrooms and such specialized facilities as an electron microscopy and photo-micrography suite, controlled environment chambers, a walk-in cold room, aquarium rooms, animal rooms, photographic darkrooms, space for work in radiation biology, a radio frequency screened area, herbarium and teaching museums with plant and animal collections and a vertebrate skull collection. A greenhouse and the Loesell Field Laboratory complete the on-campus resources of the department. The adjacent Huron River and nearby state game and recreation areas as well as the Kresge Environmental Education Center at Lapeer, Michigan, are also available for field work. Vans and boats are available for class and research use.

COURSES FOR THE BIOLOGY DEGREE PROGRAM

Intended primarily for students on the biology degree program, these courses usually presuppose the equivalent of an undergraduate major or minor in some field of biology.

(* indicates courses which can be used as techniques courses on Plan B programs)

BIOLOGY COURSES**BIO 508 Evolution, Fact and Theory.****Two sem hours**

Evidence bearing on the origin and evolution of life and the processes involved is critically examined in this lecture and discussion course. Original term paper on an aspect of recent advances in evolutionary theory required.

Prereq: Background in biology, anthropology, geology or biochemistry and departmental permission.

BIO 509 Biometry.**Three sem hours**

A general course designed to study statistical methodology and the practical application of such statistics in biology.

Prereq: A course in college algebra, 15 hours in biology.

BIO 510 Light and Electron Microscopy, Theory and Applications.**One sem hour ***

A lecture/demonstration course covering principles and methodologies of light and electron microscopy.

Prereq: Twenty semester hours of biology.

BIO 511 Biological Aspects of Aging.**Two sem hours**

A survey of aging changes at the cellular, tissue and organismal level in plants and animals from protozoa to the human. The major theories of aging will be considered. *Not open to students with credit in BIO 239 Biology of Aging.*

Prereq: One college level course in biology. A course in chemistry is recommended.

BIO 512 Biological Photography. One sem hour *

A laboratory course on the fundamentals of micro- and macro-photography of biological specimens; includes image exposure, development and printing.

Prereq: BIO 415 Basic Histological Techniques, BIO 510 Light and Electron Microscopy, Theory and Application, or departmental permission.

BIO 516 Advanced Histological Techniques.**One sem hour ***

A laboratory, lecture and demonstration techniques mini-course giving practice and theory in animal tissue slide preparation for clinical/research purposes such as fluorescence microscopy, phase/contact microscopy, histochemical staining, cryostat sectioning, and metallic impregnation staining.

Prereq: BIO 415 Basic Histological Techniques.

BIO 518 History of Biology.**Two sem hours**

Development of major concepts in biology from the Greek natural philosophers to the present.

Prereq: At least two courses in biology.

BIO 522 (410) Limnology.**Three sem hours**

A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in standing waters.

Prereq: BIO 420 (524) General Ecology and one taxonomic field course or departmental permission.

BIO 524 (420) General Ecology.**Four sem hours**

A field and laboratory course introducing the concepts involved in the study of terrestrial and aquatic communities, their physical environment and their integration into ecosystems. Emphasis will be on properties at the ecosystem, community and population levels. An individual student problem will be required.

Prereq: BOT 221 General Botany, ZOO 222 General Zoology and one taxonomic field course or departmental permission.

BIO 525 Conservation.**Two sem hours**

A survey of the natural resources of Michigan; its land, water, minerals, forests, grasslands, wildlife, and human resources. Some of the current problems in conservation peculiar to Michigan on the basis of its history, its present resource utilization and its future possibilities. *Not open to students with credit in BIO 224 Principles of Conservation.*

BIO 526 Immunobiology.**Three sem hours**

Cellular and molecular responses to immunogens; primary and peripheral immune organs; T-cells and B-cells in cell-mediated and humoral immunity, immune regulation and mechanisms; hypersensitivity; immunity against microbial infectious agents; antigen-antibody reactions in vitro used in research and diagnostics.

Prereq: MIC 329 General Microbiology, BIO 301 Genetics; biochemistry desirable.

BIO 527 Immunobiological**Methods.****One sem hour ***

An individualized laboratory course on antibody production with available antigens; immuno-diffusional and immuno-electrophoretic analysis of antigens and their components with available sera; immuno-biological research projects of student's choice. Must be taken concurrently with BIO 526 Immunobiology.

Prereq: MIC 329 General Microbiology, BIO 301 Genetics; biochemistry desirable.

BIO 528 (428) Tropical Ecology.**Three sem hours**

Important biotic communities of the tropics. Investigation in both marine and terrestrial environments; lectures, laboratory and field work. Field course. Offered only on demand and when appropriate arrangements can be made for visiting tropical laboratories and/or field stations.

Prereq: Botany, zoology, some concept of ecological principles and some familiarity with use of taxonomic keys.

BIO 529 Water Pollution Biology. Three sem hours
A study of the physiological and ecological consequences of water pollution as bases for defining water quality criteria and setting water quality standards.

Prereq: A taxonomic field course or departmental permission.

BIO 533 (433) Stream Ecology. Three sem hours
A field biology course that includes the study of physiochemical and biological aspects of stream ecosystems. Includes a study of laboratory and field methods.

Prereq: BIO 420 (524) General Ecology, a taxonomic field course or departmental permission.

BIO 534 Systems Ecology. Three sem hours
The study of whole ecosystems including modeling and simulation methods and a survey of ecological models.

Prereq: BIO 420 (524) General Ecology, MTH 104 Intermediate Algebra or one and one-half to two years high school algebra, computer programming (CSC 137 Introduction to FORTRAN Programming or CSC 237 Computer Programming and Numeric Methods or ORI 215 Introduction to Business Information Systems).

BIO 535 (435) Wetland Ecosystems. Three sem hours
Advanced field ecology course in the theory and methods of study of Wetland Ecosystems.

Prereq: BIO 420 (524) General Ecology and one taxonomic field course, or departmental permission.

BIO 536 (436) Terrestrial Ecosystems. Three sem hours
Advanced field ecology course in the theory and methods of study of the structure and dynamics of terrestrial ecosystems.

Prereq: BIO 420 (524) General Ecology and one taxonomic field course, or departmental permission.

BIO 540 Cell Biology. Three sem hours
A lecture course covering the structure and function of the nuclear and cytoplasmic components of the cell.

Prereq: Twenty hours of biology including: BOT 221 General Botany, ZOO 222 General Zoology, CHM 270 Organic Chemistry and a course in physiology.

BIO 542 Molecular Genetics. Three sem hours
(Formerly BIO 427 Introductory Molecular Genetics)

A follow-up to introductory genetics. Concentrates on the molecular aspects of the subject. The properties of genetical material at the molecular level.

Prereq: Twelve hours of biology, including BIO 301 Genetics.

BIO 543 Developmental Biology. Three sem hours
A course on the molecular aspects of early development, cytodifferentiation, cell communication, morphogenesis, pattern formation and developmental genetics.

Prereq: ZOO 323 Animal Embryology; CHM 451, 452 Biochemistry or departmental permission.

BIO 544 Tissue Culture Techniques and Methods. Two sem hours *

A course on the techniques and methodologies employed in plant and animal cell culture. An introduction to theory and practice which facilitates students' ability to develop and use in-vitro systems.

Prereq: Twenty hours of biology and departmental permission.

BIO 587 Cooperative Education in Biology. Three sem hours

Four to six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in biology or technology. The program consists of work experience alternated with full-time attendance at the University. Admittance to program by application only. Offered on credit/no credit basis.

Prereq: Departmental approval on graduate program.

BIO 590, 591, 592 Special Topics in Biology. One, two and three sem hours

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental approval.

BIO 594, 595, 596 Workshop in Biology. One, two and three sem hours

BIO 610 Cytogenetics. Four sem hours *

The structure and behavior of cells with emphasis on their nuclear components. Implications for genetics and evolution; some opportunity in the laboratory for individual investigation and for demonstration of techniques in cytological study.

Prereq: Fifteen hours of biology, including at least one course in genetics.

BIO 621 Electron Microscopy Laboratory. Three sem hours *

A specialized course in techniques of electron microscopy including preparation of various tissues, use of electron microscope and its application to the study of biological problems. Darkroom technique is also covered. Potential candidates for electron microscopy should sign up and interview with the instructor early in the preceding semester. *Recitation required.*

Prereq: Twenty hours of biology and departmental permission.

BIO 679, 680, 681 Special Topics in Advanced Biology. One, two and three sem hours
Not more than six hours of special topics may be used on a degree program.

BIO 682, 683, 684 Workshop in Advanced Biology. One, two and three sem hours

BIO 686, 687, 688 Practicum in Biology. One, two and three sem hours
 Practical experience in a particular field study, with each student responsible for the experimental design and the collection, analysis and interpretation of field data for a specific area within a broader problem under group investigation.
Prereq: Departmental permission.

BIO 689 Internship in Community College Biology Teaching. Three sem hours
 An intensive internship experience consisting of supervised participation in teaching biology at the community college level. The intern will participate in all department and professional activities at a community college and will conduct specific courses.
Prereq: Departmental permission.

BIO 690, 691, 692 Thesis. One, two and three sem hours
Offered on credit/no credit basis.
Prereq: Departmental permission.

BIO 693 Seminar in Biology. One sem hour
 Presentation of special reports and group discussions of selected topics. *Offered on a credit/no credit basis.*
Prereq: Twenty hours of credit in biology, including botany and zoology and departmental permission.

BIO 696 Seminar in Biology; Laboratory Instruction. One sem hour
 Analysis and discussion of the special problems of laboratory instruction in biology in college. *Offered on credit/no credit basis.*
Prereq: Appointment to a graduate assistantship.

BIO 697, 698, 699 Independent Study. One, two and three sem hours
 (Formerly BIO 597, 598, 599)
 An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: Departmental permission.

BOTANY COURSES

BOT 530 Plant Products in Industry. Two sem hours
 The various ways in which plants and plant products are utilized in modern industry; plants and the source of technical raw materials; the dependence of man upon the plant kingdom. *Not open to students who have credit in BOT 215 Economic Botany.*

BOT 540 Plant Morphology of Algae and Fungi. Four sem hours
 (Formerly BOT 430)
 A lecture and laboratory course on comparative morphology of the algae (freshwater and marine) and the fungi. A study of the structure and life cycles of representative organisms with emphasis on the relationship of morphology to reproduction, environmental adjustment, classification and evolution.
Prereq: Fifteen hours of biology including BOT 221 General Botany.

BOT 541 Morphology of Mosses through the Vascular Plants. Four sem hours
 (Formerly BOT 431)
 A lecture and laboratory course on comparative morphology of the mosses, liverworts, ferns and other vascular plants. A study of the structure and life cycles of representative forms with emphasis on the relationship of morphology to reproduction, environmental adjustment, classification and evolution.
Prereq: Fifteen hours of biology, including BOT 221 General Botany, BOT 540 Plant Morphology of Algae and Fungi recommended.

BOT 543 Plant Pathology. Three sem hours
 A study of plant diseases caused by fungi, bacteria, viruses, nematodes, phanerogams and environmental stress, with emphasis on the biology of the causal organisms, principles of pathogenesis, practical techniques of applied plant pathology and disease control.
Prereq: BOT 442 Plant Physiology desirable.

BOT 550 (455) Systematic Botany. Three sem hours
 A lecture, laboratory and field course addressing the principles of plant systematics and taxonomy and techniques of obtaining and analyzing data used in systematics. Major plant groups will be studied by collection, preservation and identification of specimens. *Counts as a taxonomic field course. Not open to students who hold credit in BOT 455 Systematic Botany.*
Prereq: BOT 221 General Botany.

BOT 551 (451) Freshwater Algae. Three sem hours
A survey of the freshwater algae divisions; their morphology, taxonomy, ecology and economic importance. Lectures will emphasize an evolutionary approach. Laboratory work will stress the identification of representative algal taxa. A class field study will be required. *Counts as a taxonomic field course.*
Prereq: BOT 221 General Botany.

BOT 552 (450) Aquatic Tracheophyta. Three sem hours
Identification in the laboratory and field of herbaceous and shrubby vascular plants growing in aquatic habitats and in both vegetative and reproductive phases. *Counts as a taxonomic field course.*
Prereq: BOT 221 General Botany.

BOT 553 (453) Taxonomy and Ecology of Diatoms. Three sem hours
A taxonomic field course on the collection, preservation and identification of freshwater diatoms, includes familiarity with the more significant world literature. Collection required. *Counts as a taxonomic field course.*
Prereq: BOT 451 (551) Freshwater Algae or departmental permission.

BOT 554 (354) Trees and Shrubs. Three sem hours
A taxonomic field course on identification of native trees and shrubs in winter and spring condition. *Counts as a taxonomic field course.*
Prereq: BOT 221 General Botany or BIO 205 Field Biology.

BOT 590, 591, 592 Special Topics in Botany. One, two and three sem hours
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. *Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

BOT 594, 595, 596 Workshop in Botany. One, two and three sem hours

BOT 640 Plant Cell Physiology. Two sem hours
Selected topics on recent advances in molecular botany. *Prereq: BOT 221 General Botany, laboratory physiology (general, cell, plant, or animal) and organic chemistry.*

BOT 679, 680, 681 Special Topics in Advanced Botany. One, two and three sem hours
Not more than six hours of special topics may be used on a degree program.

BOT 693 Seminar in Botany. One sem hour
Presentation of special reports and group discussions on selected topics. *Offered on credit/no credit basis.*
Prereq: Twenty hours of credit in biology, including botany and zoology.

BOT 697, 698, 699 Independent Study. One, two and three sem hours
An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: Departmental permission.

MICROBIOLOGY COURSES

MIC 541 Microbial Genetics. Four sem hours
A lecture and laboratory course on the hereditary mechanisms employed by microbes, both prokaryote and eucaryote. Methods of genetic manipulation of microbes for human benefit will be considered.
Prereq: MIC 329 General Microbiology, BIO 427 Introductory Molecular Genetics, or two semesters of biochemistry and departmental permission.

MIC 555 Determinative Microbiology. Four sem hours
A lecture and laboratory course on the biochemical characteristics, isolation and growth of selected groups of micro-organisms. Identification characterization, numerical taxonomy techniques and independent laboratory work will be emphasized.
Prereq: MIC 444 Microbial Physiology, a biochemistry course and 15 hours of biology.

MIC 587 Cooperative Education in Microbiology. Three sem hours
Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in microbiology or technology. The program consists of work experience alternated with full-time attendance at the University. Admittance to program by application only. *Offered on credit/no credit basis.*
Prereq: Departmental permission.

MIC 620 General Virology. (Formerly BOT 620) Three sem hours
Molecular virology dealing with biophysical, biochemical and biological properties of viruses; cultivation in vitro for vaccine production; infection cycles; molecular patterns of replication; and control mechanisms.
Prereq: Fifteen hours of credit in biology including microbiology and biochemistry.

MIC 693 Seminar in Microbiology. One sem hour
Presentation of special reports and group discussions of selected topics. *Offered on a credit/no credit basis.*
Prereq: Twenty hours of biology, including botany and zoology.

ZOOLOGY COURSES

ZOO 536 Vertebrate Tissues:

Structure and Function. Three sem hours

Vertebrate tissue structure and function are examined in a lecture, discussion, laboratory course. *An original term paper is required. To be offered once a year.*

Prereq: Twenty semester hours of biology including ZOO 222 General Zoology.

ZOO 548 Functional Biology of the Invertebrates.

Three sem hours

A lecture/laboratory discussion course to contrast various invertebrate functional approaches to common environmentally posed problems of survival. This will include participation in a discussion group, a team research project and report, and a term paper.

Prereq: Graduate standing. At least 20 semester hours college biology including ZOO 222 General Zoology and BIO 320 Introduction to Cell Physiology (ZOO 430 Invertebrate Zoology recommended but not required).

ZOO 570 (300) Natural History of Invertebrates.

Three sem hours

A field course in the recognition, collection, identification and preservation of common invertebrates of Michigan, exclusive of the insects; natural history, ecology, and economic importance. *Counts as a taxonomic field course.*

Prereq: ZOO 222 General Zoology.

ZOO 571 (310) Natural History of Vertebrates.

Three sem hours

Vertebrates, their adaptations and natural history; the taxonomic classification, identification and distribution of local and other forms. Field work, sometimes under adverse weather conditions and at night; accurate original data on local species. *Counts as a taxonomic field course.*

Prereq: ZOO 222 General Zoology.

ZOO 572 (422) Ichthyology.

Three sem hours

A study of some aspects of the biology, classification, distribution and evolution of fishes. Attention is given to the morphology, physiology, behavior, natural history, and ecology of fishes through work in lecture, laboratory and in the field. Specific experience in the identification of the freshwater fishes of the Great Lakes region is provided in addition to a general survey of some marine fish families. *Counts as a taxonomic field course.*

Prereq: ZOO 222 General Zoology.

ZOO 574 (474) Herpetology. Three sem hours
Amphibian/reptilian biology; taxonomy, evolution, adaptations, anatomy, behavior, ecology, zoogeography.

Field trips; some nocturnal, rainy, and two Saturdays. Dissections; salamander, lizard. Study living/preserved representatives; extant families and American species. Field or library research project required. *Counts as a taxonomic field course.*

Prereq: ZOO 222 General Zoology and one of the following: ZOO 310 Natural History of Vertebrates or ZOO 324 Comparative Anatomy of Vertebrates or BIO 420 Ecology.

ZOO 575 (425) Ornithology.

Three sem hours

Bird biology for the secondary teacher and for students with an advanced interest in biology; field identification and census methods of summer and fall bird populations, behavior and ecology. A survey in the laboratory of major North American bird families. A student field project is required. *Counts as taxonomic field course.*

Prereq: ZOO 222 General Zoology or departmental permission.

ZOO 580 Advanced Field

Ornithology.

Two sem hours

Field study and identification of all migratory birds and the spring migration as a biological phenomenon. *Counts as a taxonomic field course.*

Prereq: ZOO 575 (425) Ornithology, or some experience in field identification of birds and departmental permission.

ZOO 582 (482) Aquatic

Entomology.

Three sem hours

Aquatic insect families and some common genera; ecology, including adaptations to the aquatic environment, life histories, and taxonomy. A collection of the common insect families of this area is required. *Counts as a taxonomic field course.*

Prereq: ZOO 585 (421) Entomology recommended.

ZOO 583 Field Parasitology.

Three sem hours

The helminth, protozoan and arthropod parasites of animals, both vertebrate and invertebrate; collection, preparation and identification of parasites of local animals.

Prereq: ZOO 222 General Zoology; ZOO 462 Parasitology; ZOO 430 Invertebrate Zoology or ZOO 300 (570) Natural History of Invertebrates; and ZOO 310 (571) Natural History of Vertebrates or ZOO 324 Comparative Anatomy of Vertebrates. Departmental permission.

ZOO 584 (480) Protozoology.

Three sem hours

Survey of the protozoa, both free living and parasitic; their life cycles, morphology, and ecology. Techniques of collecting, culturing and preserving protozoans and their identification. *Counts as a taxonomic field course.*

Prereq: ZOO 222 General Zoology.

ZOO 585 (421) Entomology. Three sem hours
A survey of the world of insects, their structure, function, behavior, and ecology; identification and classification of local insects. *A field project is required. Counts as a taxonomic field course.*
Prereq: ZOO 222 General Zoology.

ZOO 586 (485) Mammalogy. Three sem hours
Some aspects of the biology of mammals; origin and evolution, anatomy, classification, adaptations, and zoogeography. Natural history and ecology are studied in the field, including behavior and population dynamics. *A collection of five or more museum study specimens of different species is required of each student. Counts as a taxonomic field course.*
Prereq: ZOO 222 General Zoology and ZOO 310 (571) Natural History of Vertebrates or BIO 420 (524) General Ecology or ZOO 431 Comparative Anatomy of Vertebrates.

ZOO 590, 591, 592 Special Topics One, two and
in Zoology. three sem hours
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. *Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

ZOO 594, 595, 596 Workshop in One, two and
Zoology. three sem hours

ZOO 670 Animal Behavior. Two sem hours
The behavior of both vertebrates and invertebrates; instinct, learning, sociality, communication and breeding behavior, with emphasis on the ontogenetic and adaptive significance of behavior patterns.
Prereq: Two courses in zoology.

ZOO 671 Comparative Vertebrate
Physiology. Four sem hours
A study of physiological and biochemical control systems utilized to maintain endogenous homeostasis in a series of vertebrate animals. *Lab required.*
Prereq: Organic chemistry, vertebrate physiology, or departmental permission.

ZOO 672 Endocrinology. Four sem hours
A biological and non-clinical survey of the invertebrate and vertebrate endocrine systems; the histology and function of each of the major endocrine organs, their specific hormones, and integrative mechanisms. *Lab required.*
Prereq: Organic chemistry and vertebrate physiology, or departmental permission.

ZOO 673 Membrane Physiology. Two sem hours
(Formerly Animal Cell Physiology)

A molecular study of animal membrane phenomena including receptor-ligand kinetics, effector protein responses and their interactions, and other events which are responsible for cell irritability, conductivity, respiration, and metabolism.
Prereq: Six hours of laboratory physiology, organic chemistry and CHM 451 Biochemistry I. One year of physics is required.

ZOO 674 Animal Cell Physiology
Laboratory. One sem hour
A lab course on animal cell physiology. Laboratory study of the physiochemical relationships responsible for the properties of cell irritability, conductivity, contractility, metabolism, respiration, excretion, growth and reproduction.
Prereq or coreq: ZOO 673 Membrane Physiology.

ZOO 679, 680, 681 Special Topics One, two and
in Advanced Zoology. three sem hours
Not more than six hours special topics may be used on a degree program.

ZOO 693 Seminar in Zoology. One sem hour
Presentation of special reports and group discussions on selected topics. *Offered on credit/no credit basis.*
Prereq: Twenty semester hours in biology, including botany and zoology.

ZOO 697, 698, 699 Independent One, two and
Study. three sem hours
An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: Departmental permission.

COURSES DESIGNED FOR TEACHERS

BIO 506 Methods in Teaching
Biology. Two sem hours
Salient techniques and methodology in presenting biological principles; text analysis, test construction, course content, planning and equipping a modern high school biology laboratory. *Not open to students who hold credit in BIO 403 Methods and Materials for Teaching Biology.*

BIO 521 Outdoor Science and
Land Laboratories. Four sem hours
Using the outdoors effectively in instruction; recognition of instructional resources on school sites and other land laboratories. Basic ecological factors affecting associations of organisms; correlations between physical and social science. Field trips.

BOT 507 Experimental Plant Physiology for Teachers. Two sem hours
Lecture and laboratory course concentrating on selected experimental physiological studies of seed plants. Offered during the summer session only. Not open to students who have had plant physiology.
Prereq: Fifteen hours in biology.

ESC 505 Science in the Elementary School. Two sem hours
A survey of subject matter and process skills utilizing current science texts and courses of study; readings in current literature; the construction and use of science materials; supply and equipment needs for elementary science. Not open to students who hold credit ESC 302 Elementary School Science.

ESC 590, 591, 592 Special Topics in Science Education. One, two and three sem hours
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studies. Not more than six hours of special topics may be used on a degree program.
Prereq: Departmental permission.

ESC 594, 595, 596 Workshop in Elementary Science Teaching. One, two and three sem hours

ESC 693, 694 Seminar in Science Education. One and two sem hours
Offered on credit/no credit basis.

COURSES FOR NON-SPECIALIZING STUDENTS

The following courses are made available for graduate students who have had little or no previous training in biology, or more specifically, have not had equivalent courses as undergraduates. These courses may be applicable as cognates for other departments within the University. Unless also listed in the preceding section, they are not open to students with an undergraduate major in biology and cannot be applied to the graduate degree program in biology. Since most require no prerequisites, they are especially suited to the general student who would like to become better informed about biology, either for general interest or for better preparation for science teaching in the elementary grades.

BIO 502 Biology of Man. Two sem hours
Man as a living organism in the world, emphasizing his/her place and relationships with the other organisms; the morphological, physiological, taxonomic and ecological relationships of mankind. Lectures and laboratory experience.

BIO 513 Principles of Heredity. Two sem hours
The basic principles of heredity with emphasis on inheritance in man. Not open to students who hold credit in BIO 301 Genetics.
Prereq: BIO 105 Biology and the Human Species or BIO 502 Biology of Man.

BIO 525 Conservation. Two sem hours
A survey of the natural resources of Michigan; its land, water, minerals, forests, grasslands, wildlife, and human influences. Some of the current problems in conservation peculiar to Michigan on the basis of its history, its present resource utilization, and its future possibilities. Not open to students who hold credit in BIO 224 Principles of Conservation.

BOT 500 Survey of the Plant Kingdom. Two sem hours
The major types of plants from algae to seed plants; emphasis on development of structure. Not open to students who have credit in BIO 205 Field Biology or BOT 221 General Botany.

BOT 503 Plants and Nature. Two sem hours
Plants in their natural environment; identification and classification of local flowering plants, use of hand-lens and plant manuals and methods of collection and preservation. Major plant groups and their climatic and geographic significance.

BOT 530 Plant Products in Industry. Two sem hours
The various ways in which plants and plant products are utilized in modern industry; plants as the source of technical raw materials; the dependence of man upon the plant kingdom. Not open to students who hold credit in BOT 215 Economics Botany.

ZOO 501 Survey of the Animal Kingdom. Two sem hours
A survey of the major animal groups from protozoans to mammals. Structure function; the basis for classification and the evolutionary relationships of the several groups. Not open to students who hold credit in BIO 205 Field Biology or ZOO 222 General Zoology.

ZOO 504 Field Zoology. Two sem hours
Animals in their natural habitats; identification, behavior and environmental relations. Field study and observations in woods, fields, ponds and streams; collecting and displaying living and preserved material.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit. A maximum of nine credit hours in 400-level courses may be applied on the department's degree program. See the undergraduate catalog for course descriptions.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

Biology

BIO 403	Methods and Materials for Teaching Biology (3)
BIO 407	Advanced Hematology (3)
BIO 412	Biogeography (2)
BIO 413	Animal and Plant Preservation Techniques (1) *
BIO 415	Basic Histological Techniques (1) *
BIO 416	Biological Instrumentation-Theory and Practice (1) *
BIO 427	Introductory Molecular Genetics (3)
BIO 434	Advanced Immunohematology (3)
BIO 461	Oncology (3)
BIO 478	Special Topics in Biology
BIO 480	Radiation Biology (3)

Botany

BOT 404	Mycology (3)
BOT 412	Plant Anatomy (3)
BOT 442	Plant Physiology (3)
BOT 446	Medical Mycology (4)

Microbiology

MIC 432	Clinical Microbiology (4)
MIC 442	Microbial Ecology (3)
MIC 444	Microbial Physiology (3)
MIC 445	Food Microbiology (3)
MIC 454	Molecular Biology of Bacteria and Viruses (3)

Zoology

ZOO 417	Neuroanatomy (3)
ZOO 427	Vertebrate Physiology (3)
ZOO 430	Invertebrate Zoology (4)
ZOO 431	Comparative Anatomy of Vertebrates (4)
ZOO 462	Parasitology (3)

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
BIO 502				Y
BIO 506	X		X	
BIO 508	Y			
BIO 509	X			
BIO 510	Y			Y
BIO 512	Y			Y
BIO 513	Y		Y	
BIO 516				X
BIO 518		Y		
BIO 521		Y	Y	
BIO 522	X	Y	Y	Y
BIO 524	X	Y	Y	X
BIO 525	X			
BIO 526			Y	Y
BIO 528		irregular		
BIO 533			Y	Y
BIO 534	X			
BIO 535		X		X
BIO 536			Y	Y
BIO 540	X			
BIO 587	X	X	X	X
BIO 610	Y			
BIO 621	X			
BOT 500	Y			
BOT 503		Y	Y	Y
BOT 507			Y	
BOT 530	Y			Y
BOT 543	X			
BOT 550		Y		Y
BOT 551	Y	Y	Y	X
BOT 552			Y	Y
BOT 553	Y			
BOT 554	X			
BOT 640	Y	Y		
ESC 505	X			X
MIC 541				Y
MIC 555	X			
MIC 587	X	X	X	X
MIC 620		Y		X
ZOO 501				Y
ZOO 504		Y	Y	
ZOO 536				X
ZOO 548	X			
ZOO 570	X		Y	
ZOO 571	X			
ZOO 572		Y	Y	X
ZOO 575			Y	X
ZOO 580		Y		
ZOO 582		Y		Y
ZOO 584	Y		Y	
ZOO 585			Y	Y
ZOO 586	Y			
ZOO 670	Y			
ZOO 671	Y			Y
ZOO 672	X			Y
ZOO 673		Y	Y	
ZOO 674		Y	Y	

Y Courses offered on a two-year cycle.

CHEMISTRY

Dr. Judith T. Levy
 Department Head
 225 Mark Jefferson
 487-0106

Edward L. Compere, Jr.
 Coordinator of Advising
 212 Mark Jefferson
 487-2057

MASTER OF SCIENCE IN CHEMISTRY

The purpose of this program is to provide advanced study of chemistry leading to the master of science degree for individuals (a) who are currently employed in chemistry-related industrial or governmental positions, or (b) who desire professional training before going into the job market or on to a doctoral program.

Admission Requirements

1. An undergraduate degree with either a major or a strong minor (approximately 25 semester hours) in chemistry.
2. Credit in advanced undergraduate courses corresponding to CHM 371-3 (Organic Chemistry I, II Lab), CHM 363, 364, 365, 464 (Physical Chemistry) and CHM 481 Instrumental Analysis, along with either CHM 432 Advanced Inorganic Chemistry or CHM 451-2 (Biochemistry I, II). Competency in any deficient areas may be established by examination. The graduate coordinator will use the results of these examinations to ascertain the need for remedial work. If deficiencies exist for which competency is not established by examination, a maximum of four semester hours of graduate credit will be allowed for courses taken to correct these deficiencies.
3. One year of calculus-based college physics (PHY 223 Mechanics, Sound and Heat, PHY 224 Electricity and Light); linear algebra and calculus through differential equations.
4. An undergraduate record that meets the requirements specified by The Graduate School.
5. Submission of scores from the Graduate Record Examination is ordinarily required. These should include the verbal, quantitative and advanced chemistry test portions.

Degree Requirements

A. Thesis Plan

1. Course credit requirement: satisfactory completion of a minimum of 30 semester hours of graduate credit. Course distribution requirements and options:
 - a. Core course requirements: three of the following courses with no more than one course in each of the five areas: CHM 553 or CHM 555; CHM 561 or CHM 562; CHM 571; CHM 632; CHM 641; CHM 655. In order to graduate, a student must have a grade point average of "B" or better in the core courses.
 - b. Chemical literature proficiency requirement: CHM 610.
 - c. Seminar requirement: CHM 693 and attendance at departmental seminars.
 - d. Cognate courses: zero to six credit hours in courses taken outside of the Chemistry Department. These courses must be approved by the graduate coordinator.
 - e. Research requirement: six to 10 credit hours from CHM 697, CHM 698, CHM 699 and satisfactory completion of a thesis representing a significant contribution of original research in chemistry. In addition to the written thesis, a formal oral presentation of the research is required either before the chemistry faculty or at a professional meeting; also must be approved by the graduate coordinator.
 - f. Additional courses to complete the required 30 semester hours of graduate credit from 500-, 600-level chemistry courses (but excluding CHM 520) or from the following 400-level chemistry courses: CHM 411G Toxicology I, CHM 412G Toxicology II, CHM 413G Toxicology Laboratory, CHM 433G Inorganic-Organic Synthesis Laboratory, CHM 477G, 478G, 479G Special Topics, CHM 485G Radioisotope Techniques in Chemistry and Biology, CHM 487G Cooperative Education in Chemistry.
 - g. Of the 30 semester hours required, no more than nine hours of 400-level courses may be used on the degree. No graduate credit below the 400-level is allowed.

If you intend to enroll in any of the above undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise you will receive undergraduate credit.

- B. **Non-Thesis Plan:** intended for the part-time student whose professional experience constitutes a reasonable substitute (as determined by the gradu-

ate coordinator) for the laboratory research of the thesis plan. The requirements are listed below:

1. Research requirement: Satisfactory completion of a written report, in thesis style, on a project carried out in their job in the off-campus setting. The industrial research experience must be judged a reasonable substitute for a typical academic research project. This will be evaluated by the Graduate Committee and the Department Head.
2. Research seminar: Presentation of a seminar to the chemistry faculty. This seminar must meet the standards described for the research seminar in the Department Graduate Student Handbook.
3. Course requirements: Satisfactory completion of a minimum of 34 semester hours of graduate credit, including the core courses and required courses of the Plan A thesis option.

CHEMISTRY COURSES

CHM 510 Computer

Applications in Chemistry. Two sem hours

A course in computer programming designed for advanced undergraduates and graduate students. The emphasis is on the application of computer-based numerical methods of the solution of complex chemical problems. *Prereq: Senior or graduate standing in chemistry; no prior background in computer programming is necessary.*

CHM 511 Introduction to

Industrial Hygiene. Two sem hour

The course introduces the concepts, practices, standards, and legal requirements associated with the protection of workers from chemical hazards, radiation, noise stress, and heat stress in the work place.

Prereq: CHM 372 Organic Chemistry II required; CHM 281 Quantitative Analysis and CHM 411 Toxicology I recommended.

CHM 512 Industrial Hygiene

Laboratory. One sem hour

This laboratory course instructs students in the methods used to analyze for the presence of hazardous chemicals in the air of factories.

Prereq: CHM 281 Quantitative Analysis; CHM 271 Organic Chemistry Laboratory; CHM 373 Organic Chemistry Laboratory. Prereq or Coreq: CHM 511 Introduction To Industrial Hygiene.

CHM 515 Industrial and

Environmental Chemistry. Three sem hours

A three-part course covering selected aspects of industrial organic chemistry, industrial inorganic chemistry, and environmental chemistry. Environmental problems

most closely associated with the production aspects of industrial chemistry will be discussed.

Prereq: One year of organic chemistry; one course in inorganic chemistry; one course in physical chemistry.

CHM 553 Enzymology.

Two sem hours

A lecture course covering the nomenclature, kinetics, mechanism, and regulation of enzymes.

Prereq: CHM 451 Biochemistry I.

CHM 555 Neurochemistry.

Two sem hours

Discussion of the biochemistry of the nervous system covering the synthesis, distribution, mechanism of function, and degradation of compounds involved in neural function (including neurotransmitters, neurohormones, brain sphingolipids, steroids, and prostaglandins). Mental diseases with a known biochemical basis and the rationale for drug therapy are described.

Prereq: CHM 452 Biochemistry II.

CHM 561 Quantum Chemistry and Spectroscopy.

Two sem hours

A study of atomic and molecular structure and spectroscopy based on quantum chemistry.

Prereq: One year physical chemistry, two years calculus, and one year calculus based physics.

CHM 562 Statistical Mechanics and Chemical Kinetics.

Two sem hours

Introduction to the principles of statistical mechanics, the connection between the microscopic world and classical thermodynamics, and modern theories of chemical reaction rates.

Prereq: CHM 462 Physical Chemistry II; MTH 325 Differential Equations; PHY 224 Electricity and Light.

CHM 564 Physical-Chemical

Characterization of Polymers. Two sem hours

Physical methods of polymer characterization, including molecular weight determination, size fractionation; thermal analysis, degradation, depolymerization, and reaction kinetics. Laboratory: six hours per week.

Prereq: CHM 463 Physical Chemistry Laboratory and CHM 475 Introduction to Polymer Chemistry.

CHM 565 Nuclear Chemistry.

Three sem hours

The course will cover topics such as radioactive decay, decay systematics, nuclear models, and nuclear reactions. Applications of radioactivity to chemical problems will be discussed. Techniques of nuclear chemistry, nuclear processes as chemical probes and other such topics will be covered. A discussion of the preparation and properties of transplutonium elements will be included.

Prereq: One year of college chemistry; one course in physical chemistry or modern physics.

CHM 571 Advanced Organic Chemistry.**Three sem hours**

A lecture course devoted to developing a deeper understanding of the structure of organic compounds and the mechanism of organic reactions. The structural aspects of bonding, stereochemistry, and conformation will be extended beyond the introductory level prior to considering mechanistic studies on several fundamental reaction types.

Prereq: One year of organic chemistry.

CHM 572 Spectrometric Organic Structure Determination.**Three sem hours**

(Formerly Stereochemistry of Organic Compounds)

The use of infra-red, Raman, ultra-violet, mass, and nuclear magnetic resonance spectroscopy in organic structure determination will be discussed. Emphasizes problem-solving and practical applications.

Prereq: CHM 372 Organic Chemistry II.

CHM 573 Qualitative Organic Chemistry Laboratory.**Two sem hours**

Organic reactions and instrumental measurements—especially EAR, NMR, and mass spectra—will be used to systematically identify organic compounds. Microtechniques are emphasized. Laboratory: six hours per week.

Prereq: CHM 373 Organic Chemistry Laboratory.

Coreq: CHM 572 Spectrometric Organic Structure Determination.

CHM 574 Advanced Organic Chemistry Topics.**Two sem hours**

Two or three advanced topics are treated in depth. The topics selected will vary from offering to offering and could include such examples as: stereochemistry and conformational analysis, natural product chemistry, heterocyclic compounds, orbital symmetry rule and applications, and photochemistry.

Prereq: CHM 372 Organic Chemistry II.

CHM 590, 591, 592 Special Topics in Chemistry.**One, two and three sem hours**

An in-depth study of a specialized area of chemistry. Not offered on a regular basis.

Prereq: Graduate standing.

CHM 610 Information Retrieval in Chemistry.**One sem hour**

A course designed primarily to provide M.S. candidates with a proficiency in locating chemical information by independent study. Exercises are relevant to research and involve both manual and computerized information retrieval.

Prereq: Graduate standing.

CHM 632 Structural**Inorganic Chemistry.****Three sem hours**

Physical and chemical methods for determining structures of inorganic substances and the relationship between structure and descriptive chemistry will be discussed.

Prereq: One year of physical chemistry and one course in advanced inorganic chemistry.

CHM 641 Advanced**Analytical Chemistry.****Three sem hours**

A course stressing modern methods of analysis, with special emphasis on trace determinations. Optical, X-ray, separation and nuclear methods are examined in detail.

Prereq: CHM 481 Instrumental Analysis and one year of physical chemistry.

CHM 655 Advanced**Biochemistry Topics.****Two sem hours**

Specialized areas of biochemistry are discussed in depth, with an emphasis on recent research developments.

Prereq: CHM 452 Biochemistry II.

CHM 665 Physical Chemistry of Polymers.**Two sem hours**

Thermodynamics and kinetics of step-growth and chain-growth polymerizations, the configuration and conformation of polymers, the properties of polymer solutions and phase equilibria, including crystallinity, and molecular weight determination.

Prereq: CHM 475 Introduction to Polymer Chemistry and CHM 562 Statistical Mechanics and Chemical Kinetics.

CHM 675 Advanced Organic Polymer Chemistry.**Three sem hours**

The reactions used to form specialty polymers including polyaromatic heterocycles and metal containing polymeric systems in semiconducting materials. The use of phosphazines and siloxanes and the development of new monomer systems. Composites and polymer blends in multi-phase systems. Polymers and polymeric materials in electronics and medicine.

Prereq: CHM 372 Organic Chemistry II, CHM 373 Organic Chemistry Laboratory, CHM 461 Physical Chemistry I, and CHM 475 Introduction to Polymer Chemistry.

CHM 693 Seminar in Chemistry.**One sem hour**

Discussion of specific topics in chemistry by graduate students. Emphasis will be placed on the improvement of oral communication techniques for presentation of scientific material.

Prereq: Departmental permission.

CHM 697, 698, 699 Research in Chemistry. One, two and three sem hours

The student performs original research under faculty direction. Repeat enrollment is allowed. Thesis is submitted after completion of six to 10 hours of research in chemistry,

Prereq: Departmental permission.

SCHEDULING PATTERNS FOR M.S. IN CHEMISTRY COURSES

Course	Winter	Spring	Summer	Fall
CHM 510	O			
CHM 511	O			
CHM 512	O			
CHM 515				O
CHM 553				E
CHM 555			X	
CHM 561	E			
CHM 562	O			
CHM 564				O
CHM 565				O
CHM 571				E
CHM 572				O
CHM 573				O
CHM 574	O			
CHM 610				X
CHM 632				E
CHM 641	O			
CHM 655	E			
CHM 665	E			
CHM 675	O			
CHM 693	X			
CHM 697	X	X	X	X
CHM 698	X	X	X	X
CHM 699	X	X	X	X

E, O Courses offered on a two-year cycle in even/odd numbered years.

X Courses offered annually.

COMMUNICATION AND THEATRE ARTS

Dennis M. Beagen
Department Head
136 Quirk
487-3131

Patricia Moore Zimmer
Coordinator of Advising
Drama/Theatre for the Young
104 Quirk
487-0031

Parker Zellers
Coordinator of Advising
Communication and Theatre Arts
102 Quirk
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The Department of Communication and Theatre Arts provides the following programs of graduate study leading to the degrees of master of fine arts in drama/theatre for the young, master of arts in communication, master of arts in theatre, and master of arts in drama/theatre for the young.

OBJECTIVES

1. Advancing students toward mastery of their creative areas of specialization within communication and theatre arts.
2. Providing students with the opportunity to acquire and apply the tools essential to research in communication and theatre arts.
3. Preparing students for careers and further study in communication and theatre arts.

REQUIREMENTS FOR ADMISSION

Applicant must be admitted to The Graduate School.

Master of Fine Arts

1. Applicant must have a minimum overall undergraduate GPA of 2.75, or 3.0 in the last half of the undergraduate program if the bachelor's degree was earned before 1975; a GPA of 3.0 is required if the bachelor's degree is more recent than 1975. Exceptions to this requirement can be made if at least 15 semester hours of graduate work have already been earned with a GPA of 3.0 or higher.
2. Applicant's undergraduate studies, considered along with relevant extra-academic experiences, must provide an appropriate foundation for the special graduate focus of his/her choice.

3. An interview with at least one faculty member in the program is normally a part of the admission process, along with letters of recommendation and samples of the student's previous work.
4. Applicant must be accepted into the departmental program by the Graduate Committee of Communication and Theatre Arts.

Master of Arts

1. Minimum of a minor or the equivalent in communication, theatre arts, or drama/theatre for the young.
2. Minimum GPA of 2.5 overall or 2.75 in last half on a 4.0 scale.
3. Acceptance into the departmental program by the Graduate Committee of the Department of Communication and Theatre Arts.

AVAILABLE PROGRAMS

Master of Fine Arts in Drama/Theatre for the Young

This program is designed to serve the further preparation of qualified students for a variety of careers involving drama/theatre for developmental purposes, as well as theatre arts for the young.

Course of Study for Master of Fine Arts

1. A minimum of 60 semester hours of approved course work beyond the bachelor's degree or a minimum of 30 semester hours beyond an appropriate master's degree must be satisfactorily completed.
2. This department-based program is built around required core courses, supplemented by elective and cognate courses, to achieve a concentration in developmental drama and theatre for and with the young.
3. A program of study must be prepared in consultation with assigned graduate adviser early in student's graduate work.

Required Courses (27-28 hours)

CTA 429G	History and Theory of Developmental Drama/Theatre (3)
CTA 501	Creative Drama and Role-Playing (2)
CTA 504	Oral Interpretation of Literature and Language with the Young (2)
CTA 522	TIE: Theatre-in-Education (2)
CTA 565	Studies in Drama/Theatre for the Young (2)
CTA 606	Colloquium in Communication and Theatre Arts (1)
CTA 608	Colloquium in Communication and Theatre Arts (3)
CTA 627	The Playwright and the Young Audience (3)
CTA 657	Advanced Improvisation (3)
CTA 658	Theatre for Children (3)

CTA 684 Workshops in Communication and Theatre Arts (3) or

CTA 685 Workshops in Communication and Theatre Arts (4)

Required Research Courses (eight hours)

CTA 677 Research Techniques (2)

CTA 690 Examination (1)

CTA 691, 692 Thesis (2-3) or

CTA 691, 692 Project (2-3)

Elective Courses (14-15 hours)

These can be selected from within the department and from appropriate courses in other departments with the consent of the adviser.

Internship (10 hours)

CTA 686, 687, 688, 689 (1, 2, 3, 4)

Master of Arts in Communication

This program is designed to further prepare students with undergraduate degrees who have completed majors or minors in communication or speech. The master of arts program serves those students preparing for careers that demand sophisticated knowledge of the many aspects of human communication, as well as students intending to pursue additional graduate work beyond the master's level. The primary emphases are interpersonal, small group, organizational, intercultural, and speech communication.

Master of Arts in Theatre Arts

This program is designed to advance those students with an undergraduate major or minor in theatre arts for careers in all levels of theatre or for further graduate study in the discipline.

Master of Arts in Drama/Theatre for the Young

This program is designed to further prepare students to enter careers involving work in drama/theatre and communications with and for children, young people, and inter-generational groups.

Course of Study for Master of Arts Programs

1. The completion of a minimum of 30 hours of approved course work.
2. Training in research approaches and resources in communication, theatre arts and drama/theatre for the young; possible inter-departmental cognate; possible intra-departmental cognate in communications, theatre arts, drama/theatre for the young, telecommunications and film, oral interpretation, or speech improvement and pedagogy.
3. The preparation of a program of study in consultation with assigned graduate adviser, to be prepared at outset of student's graduate work.

4. A detailed description of each of the master of arts programs may be obtained from the department or the coordinator of advising.

Available Concentrations Within the Master of Arts Programs

1. *Oral Interpretation* (M.A. in Communication)
This is an advanced concentration of specialized study for students interested in restoring to literature the voices and bodies originally equated with literature. It combines skills related to literary study, aesthetic awareness, philosophical analysis, psychological insight, communication theory, and performance.
2. *Public Address* (M.A. in Communication)
This is an advanced concentration of specialized study for students interested in rhetorical theory and criticism and/or the history of public address as they relate to communication theory.
3. *Arts Administration* (M.A. in Theatre Arts)
This is an advanced concentration of specialized study for students seeking careers in management of commercial, non-profit, community, or educational arts organizations. The program is designed as a continuation of previous study in arts administration, business, or theatre. (Basic business classes at the undergraduate level are required for entrance to this concentration.)

GRADUATION REQUIREMENTS

Master of Fine Arts

1. Student must have an official program of study on file in The Graduate School.
2. Student must have successfully met all conditions stipulated upon entry into the program.
3. Student must have successfully completed a minimum of 60 hours of approved course work as identified in his/her program of study.
4. Student must have achieved an overall GPA of at least 3.0 (B).
5. Student must have successfully completed CTA 677 Research Techniques in Communication and Theatre Arts.
6. Student must achieve:
 - a. the successful completion of a qualifying examination covering the core curriculum, the chosen concentration, and relevant electives;
 - b. one of the following:
 - (1) the submission and defense of a thesis; or
 - (2) the successful completion of a special theory-application project.
7. Student must have successfully completed the internship component (10 hours).

Each year a limited number of graduate assistantships are awarded by the department to students possessing excellent backgrounds in communication and/or theatre arts AND at least a 3.0 GPA in their undergradu-

ate work. Such students assist with teaching of up to three sections of the department's fundamentals of speech course, or assist with the teaching of basic theatre arts or drama/theatre for the young courses, or with supervising one of the co-curricular activities.

Master of Arts

1. Student must have an official program of study on file in The Graduate School Office.
2. Student must have successfully met all conditions stipulated upon entry into the program.
3. Student must have successfully completed a minimum of 30 hours of approved course work as identified in his/her program of study.
4. Student must have achieved a grade point average of at least 3.0 (B) overall.
5. Student must have successfully completed CTA 677 Research Techniques in Communication and Theatre Arts.
6. Student must achieve one of the following:
 1. the successful completion of a terminal qualifying examination covering the student's elected concentration and elected cognates; or
 2. the submission and defense of a thesis; or
 3. the successful completion of a special theory-application project.

Each year a limited number of graduate assistantships are awarded by the department to students possessing excellent backgrounds in communication and/or theatre arts AND at least a 3.0 GPA in their undergraduate work. Such students assist with teaching of up to three sections of the department's fundamentals of speech course; or assist with the teaching of basic theatre arts or drama/theatre for the young courses; or with supervising one of the co-curricular activities.

GENERAL COURSES

General courses in communication and theatre arts are courses that, in addition to being offered for credit toward an M. A. in communication and theatre arts, are offered for the benefit of graduate students specializing in departments other than communication and theatre arts who wish to take collateral or cognate work in the Department of Communication and Theatre Arts. Such students, however, are not restricted to these courses; they may take any other graduate courses in communication and theatre arts for which they have prerequisites.

COMMUNICATION COURSES

CTA 506 Persuasion in the Modern

World.

Two sem hours

Emphasis is placed on the uses and applications of persuasion in such areas as politics, business, religion, and education.

**CTA 507 Negotiation Skills
for Professionals.** Two sem hours
(Formerly CTA 591)
Practical applications of negotiation skills for counseling, education, and business professions.

**CTA 508 Small Group
Decision-Making.** Two sem hours
The theory and practice of discussion and practice of communication in small group decision-making.

**CTA 509 Communication
for Leaders.** Two sem hours
Theory and applications of communication in leadership roles. Deals with interviews, staff meetings, dyadic communication, communication in large and small organizations, and communication barriers with methods of evaluating and improving interpersonal, group, and public communication.

**CTA 510 Listening Skills
for Professionals.** Two sem hours
(Formerly CTA 591)
Practical applications of listening skills for counseling education and business professions.

**CTA 574 Directing Secondary
Forensic Activities.** Two sem hours
The philosophy, organization, and administration of forensic programs for those who direct or plan to direct such activities on the secondary level.
Prereq: Departmental permission.

**CTA 583 Communication and
Conflict Resolution.** Three sem hours
(Formerly CTA 592)
A study of the theory and practice of communication strategies for conflict resolution for interpersonal, small group, and organizational applications.
Prereq: Fifteen hours of credit in communication and major/graduates.

THEATRE ARTS COURSES

**CTA 554 Directing High School
Dramatic Activities.** Two sem hours
The philosophy, organization and administration of dramatic programs for those who direct or plan to direct such activities on the high school level.
Prereq: Departmental permission.

**CTA 555 Play Production—
Junior/Senior High School.** Two sem hours
Principles and techniques of play production with emphasis on problems encountered in secondary schools. Dramatic structure, play selection, directing, scene design and construction, stage lighting, make-up, costuming, properties, and business management; im-

provement of effectiveness in both curricular and extra-curricular theatre.
Prereq: Non-major/graduates. Recitation required.

DRAMA/THEATRE FOR THE YOUNG COURSES

**CTA 501 Creative Drama
and Role-Playing.** Two sem hours
An introduction to understanding the creative process, dramatic play, gaming, and involvement drama as developmental learning.

**CTA 502 Introduction to Theatre
for the Young.** Two sem hours
An introductory consideration of the scope, purposes, forms, and materials of theatre for the young.

**CTA 504 Oral Interpretation of
Literature and Language
with the Young.** Two sem hours
Emphasis on the study of interpreting literature orally for and with the young, including developing competence and understanding in the adult and child in interpretive and improvised work emerging from literature and language.

**CTA 522 TIE:
Theatre-in-Education.** Two sem hours
A study of the origin, principles and forms of TIE: Theatre-in-Education. Students will have opportunities to plan and evaluate TIE sessions.

**CTA 523 Puppetry: Catalyst in
Human Development.** Two sem hours
Consideration of puppetry as a medium for learning and creative expression. Experience in constructing puppets for purposeful work with people. Examination of the applications of puppetry to many disciplines.

**CTA 524 Developmental
Drama/Theatre with
Handicapped Persons.** Two sem hours
Study of principles, theories, and practices of developmental drama/theatre for handicapped persons. Applications to educational, recreational, and institutional settings will be stressed.

**CTA 525 Developmental
Drama/Theatre in
Recreational Settings.** Two sem hours
An exploration of the theory and practice of developmental drama/theatre in various recreational settings, such as camps, parks, community centers, Girl Scouts, 4-H.

CTA 528 Developmental**Drama/Theatre in Religion. Two sem hours**

Consideration of and experience in uses of developmental drama/theatre for various religious settings and purposes.

CTA 627 The Playwright and the Young Audience.**Three sem hours**

A study of dramatic literature for the young, from developmental as well as artistic viewpoints and in contexts of the main body of dramatic literature and children's literature, and the total educational experience of children and adolescents.

CTA 686, 687, 688 Cooperative**Education in Communication and Theatre Arts. One, two and three sem hours**

One term of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. *Offered on a credit/no credit basis.*

Prereq: Twenty hours of credit in communication and theatre arts; approval by Cooperative Education Office and the department.

TELECOMMUNICATIONS AND FILM COURSES**CTA 534 Directing High School Broadcasting, TV and Film Activities.****Two sem hours**

The philosophy, organization, and administration of broadcasting, television, and film programs for those who direct or plan to direct such activities on the high school level.

Prereq: Departmental permission.

CTA 537 Mass Communications. Two sem hours

A comparative study of the mass media in the United States; their development, function and import. Special emphasis will be placed on the process and effects of mass communication with detailed study of radio and television.

CTA 538 Television Techniques for the Classroom Teachers I. Two sem hours

Skills and techniques needed by classroom teachers for the effective presentation of educational materials through the medium of television. Theory and practice.

CTA 548 Television Techniques for Classroom Teachers II. Two sem hours

A continuation and intensification of the theoretical and practical experience in instructional television provided in CTA 538 Television Techniques for Classroom Teachers I. Laboratory hours to be arranged.

SPECIALIZATION COURSES

Specialization courses in communication and theatre arts are courses specifically designed for students wishing credit toward the M.A. in communication and theatre arts. Such courses are open to other students, however, who have the necessary prerequisites.

COMMUNICATION COURSES**CTA 570 Teaching of College Speech.****One sem hour**

Theory and practice of teaching speech at the college level. *Offered on a credit/no credit basis.*

Prereq: Departmental permission.

CTA 573 Studies in Communication and Negotiation.**Three sem hours**

The theory and practice of negotiation for interpersonal, small group, and labor/management applications.

CTA 575 Studies in Listening Behavior.**Three sem hours**

A study of practice of listening behavior for interpersonal, small group, and organizational applications.

Prereq: Fifteen hours in communication and major in communication and theatre arts.

CTA 576 Public Address.**Three sem hours**

Critical study of the significant speeches of leading speakers with reference to their dominant issues and their influence on social and political life.

Prereq: Fifteen hours of credit in communication.

CTA 577 Communication and Change.**Three sem hours**

An exploration of interpersonal, small group, organizational, public, and mass communication from the perspective of change theories.

Prereq: Graduate student in communication, qualified senior, or departmental permission.

CTA 578 Community Communication.**Three sem hours**

An exploration of such communication problems as communicator acceptability, social coordination, and outcome achievement from the perspective of the community context.

Prereq: graduate student in communication, qualified senior, or departmental permission.

CTA 581 Rhetorical Theory to 1900. **Three sem hours**
 A study of selected rhetorical theories from the classical age to 1900. The course is designed to facilitate understanding of the transition from classical to modern rhetorical theory.
Prereq: Fifteen hours of credit in communication.

CTA 582 Modern Rhetorical Theory. **Three sem hours**
 A study of selected rhetorical theories from 1900 to the present with a view of discovering the methods and objectives of modern rhetoricians and relating them to society and its problems.
Prereq: Fifteen hours of credit in communication.

CTA 584 Studies in Small Group Communications. **Three sem hours**
 An examination of methods and research currently being conducted in discussion and small group studies.
Prereq: Fifteen hours of credit in communication.

CTA 585 Theories of Argument and Controversy. **Three sem hours**
 Theoretical foundations of argument and controversy and a review of related research.
Prereq: Fifteen hours of credit in communication and major/graduates.

CTA 586 Theories of Persuasion. **Three sem hours**
 A review of contemporary research and theory of persuasion.
Prereq: Fifteen hours of credit in communication and major/graduates.

CTA 587 Communication Theory. **Three sem hours**
 A critical examination of fundamental processes and principles of communication behavior.
Prereq: Fifteen hours of credit in communication and major/graduates.

CTA 588 Research in Communication. **Three sem hours**
 The examination of communication research methods with a major emphasis upon empirical research. Students will select and design a major research project.
Prereq: Fifteen hours of credit in communication and major/graduates.

CTA 590, 591, 592 Special Topics in Communication and Theatre Arts. **One, two and three sem hours**
 Students will investigate a particular topic that is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate student or qualified senior in communication and theatre arts.

CTA 606, 607, 608 Colloquium in Communication and Theatre Arts. **One, two and three sem hours**
 Students will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission.

CTA 645 Theories of Interpersonal Communication. **Three sem hours**
 Study of the theoretical foundations of interpersonal communication and survey of related research.
Prereq: Fifteen credit hours in communication.

CTA 677 Research Techniques in Communication and Theatre Arts. **Two sem hours**
 An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive and experimental research; professional writing. (Winter semesters)
Prereq: Fifteen hours of credit in communication and theatre arts and major/graduate.

CTA 679, 680, 681 Special Topics in Communication and Theatre Arts. **One, two and three sem hours**
 Students will investigate a particular topic that is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate student in communication and theatre arts.

CTA 682, 683, 684, 685 Workshops in Communication and Theatre Arts. **One, two, three and four sem hours**
 Students will be provided practical and theoretical study in a selected topic area. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission.

CTA 686, 687, 688 Cooperative Education in Communication and Theatre Arts. **One, two and three sem hours**
 One term of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. *Offered on a credit/no credit basis.*
Prereq: Twenty hours of credit in communication and theatre arts; approval by Cooperative Education Office and the department.

CTA 690 Degree Requirement:**Examination. One sem hour**

An examination over the student's field of study conducted by a departmental faculty committee from assigned readings. *Offered on a credit/no credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirements: Thesis. One, two and three sem hours

A research-oriented study conducted under the supervision of a departmental faculty committee. *Offered on a credit/no credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirement: Project. One, two and three sem hours

A theory-application project conducted under the supervision of a departmental faculty committee. *Offered on a credit/no credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 693, 694, 695 Seminar in Communication and Theatre Arts. One, two and three sem hours

A research-oriented course for graduate majors in communication and theatre arts.

Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 697, 698, 699 Independent Study. One, two and three sem hours

An intensive study of one or more problems under the direction of a University faculty member.

Prereq: Departmental permission.

ORAL INTERPRETATION/PERFORMANCE STUDIES**CTA 536 Screenplay Writing I. Three sem hours**

Introduces students to a process that leads to the successful completion of a screenplay to mid-point; includes film structure, character and dialogue, writing for visual impact, screenplay format.

CTA 540 Personal Narrative/

Oral History in Performance. Three sem hours
Explores nature and role of these texts in relationship to "other" and social-cultural-political perspectives. Focus on primary sources, including interviewing, transcribing, scripting, staging for solo-group performance, ethics.

Prereq: Six hours in oral interpretation or department permission.

CTA 541 Performance, Text and Context. Three sem hours

Exploration and experience in locating new texts and performances within the parameters of specific contexts. Emphasis on implications of cultural and socio-political features for communicative purposes in performance. Group project.

Prereq: Six credit hours in oral interpretation, CTA 540 Personal Narrative/Oral History in Performance, or CTA 542 Adapting/Directing Narrative Theatre; or department permission.

CTA 542 Adapting/Directing Narrative Theatre. Three sem hours

Analysis, adaptation, and direction of narrative, particularly prose fiction, for group performance and theatre; exploration of consequences of acoustic and pictorial concepts; experimentation in emergent forms.

Prereq: Six credit hours in oral interpretation or department permission.

CTA 546 Screenplay Writing II. Three sem hours

Continues process initiated in Screenplay I to successful completion of screenplay and first major rewrite; concentration on visual telling, refining character, dialogue, narrative, subplot, metaphor and symbol, rhythm, pacing.

Prereq: CTA 536 Screenplay Writing I and a screenplay completed to mid-point, or permission of the department.

THEATRE ARTS COURSES**CTA 551 Theatre Planning. Two sem hours**

A study of the steps and considerations appropriate to the design of theatre structures with emphasis on institutional and community playhouses.

Prereq: Nine hours credit in theatre arts or departmental permission.

CTA 556 Experimental Staging Techniques for the Director. One sem hour

Exploration and practical application of non-traditional staging possibilities.

Prereq: One course in directing or departmental permission.

CTA 557 Audition Techniques for the Actor. One sem hour

Review of the literature and personalized preparation of materials and techniques equipping the actor to better confront tryouts and auditions for the commercial and non-commercial theatre.

Prereq: One course in acting or departmental permission.

CTA 558 Directing Styles. Two sem hours
The theory and practice of directing selected periods of drama, with emphasis on Greek, Elizabethan, Restoration, modern, and non-Western presentational forms.
Prereq: One course in directing or departmental permission.

CTA 559 Acting Styles. Two sem hours
The theory and practice of acting within selected periods of Greek, Elizabethan, Restoration, modern, and non-Western presentational forms.
Prereq: One course in acting or departmental permission.

CTA 560 Ancient Dramatic Theory. Three sem hours
Study of the main theories regarding the nature and purpose of drama from ancient Greece to the end of the 17th century.
Prereq: CTA 450 *History of the Theatre to 1642* and CTA 451 *History of the Theatre: 1642 to the Present* or departmental permission.

CTA 561 Modern Dramatic Theory. Three sem hours
The main theories regarding the nature and purpose of drama from the beginning of the 18th century to the present.
Prereq: CTA 450 *History of the Theatre to 1642* and CTA 451 *History of the Theatre: 1642 to the Present* or departmental permission.

CTA 562 American Theatre History. Two sem hours
A tracing of the main currents in the history of the American theatre from its beginnings in the middle 1700s to the present day.
Prereq: CTA 450 *History of the Theatre to 1642* and CTA 451 *History of the Theatre: 1642 to the Present* or departmental permission.

CTA 566 Studies in Theatre History. Two sem hours
This course will be concerned with a penetrating study of the theatrical activity and technology prevalent during a particular period in world history.
Prereq: CTA 450 *History of the Theatre to 1642* and CTA 451 *History of the Theatre: 1642 to the Present* or departmental permission.

CTA 567 Problems in Design and Technical Theatre. Two sem hours
An intensive study of the organic theory of theatre production with emphasis on the contributions of Craig, Appia, Bakst, Reinhardt, Jones, Simonson and BelGeddes.
Prereq: CTA 351 *Scene Design*, CTA 362 *Stage Lighting*, CTA 450 *History of the Theatre to 1642*, and CTA 451 *History of the Theatre: 1642 to the Present* or departmental permission.

CTA 568 Musical Theatre Performance Techniques. Two sem hours
The course is designed for knowledgeable actors who are beginning work with musical theatre literature. The emphasis is on workshop experience to develop techniques for performing songs.
Prereq: One course in acting or departmental permission.

CTA 569 Studies in Directing. Two sem hours
An in-depth study of the theories and practices of noted stage directors, past and present.
Prereq: One course in directing or departmental permission.

CTA 590, 591, 592 Special Topics in Communication and Theatre Arts. One, two and three sem hours
Students will investigate a particular topic that is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate student or qualified senior in communication and theatre arts.

CTA 606, 607, 608 Colloquium in Communication and Theatre Arts. One, two and three sem hours
Students will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. Offered on a credit/no credit basis.
Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission.

CTA 651 Design I. Two sem hours
Intermediate consideration of the theoretical and mechanical factors governing the design of scenery for the stage.
Prereq: Six hours of credit in theatre arts.

CTA 660 Playwriting I. Two sem hours
Intermediate study of the approaches to and the structural composition of dramatic writing.
Prereq: Six hours of credit in theatre arts.

CTA 661 Playwriting II. Two sem hours
A continuation of CTA 361 Dramatic Writing.
Prereq: Graduate student in communication and theatre arts.

CTA 662 Lighting. Two sem hours
A continuation of CTA 362 Stage Lighting.
Prereq: Graduate student in communication and theatre arts.

CTA 663 Costume I. Two sem hours
Intermediate study of the approaches to and the historical sources for stage costuming.
Prereq: Six hours of credit in theatre arts.

CTA 664 Costume II. Two sem hours
Problems of construction and design of period costumes for the stage with emphasis on practical application culminating in a final design and construction project.
Prereq: CTA 363 Stage Costume: History and Theory or CTA 663 Costume I, or departmental permission.

CTA 677 Research Techniques in Communication and Theatre Arts. Two sem hours
An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive, and experimental research; professional writing. (Winter semesters)
Prereq: Fifteen hours of credit in communication and theatre arts.

CTA 679, 680, 681 Special Topics in Communication and Theatre Arts. One, two and three sem hours
Students will investigate a particular topic that is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate student in communication and theatre arts.

CTA 682, 683, 684, 685 Workshops in Communication and Theatre Arts. One, two, three and four sem hours
Students will be provided practical and theoretical study in a selected topic area. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission.

CTA 686, 687, 688 Cooperative Education in Communication and Theatre Arts. One, two and three sem hours
One term of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. *Offered on a credit/no credit basis.*
Prereq: Twenty hours of credit in communication and theatre arts; approval by Cooperative Education Office and the department.

CTA 690 Degree Requirement: Examination. One sem hour
An examination over the student's field of study conducted by a departmental faculty committee from assigned readings. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirements: Thesis. One, two and three sem hours
A research-oriented study conducted under the supervision of a departmental faculty committee. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirement: Project. One, two and three sem hours
A theory-application project conducted under the supervision of a departmental faculty committee. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 693, 694, 695 Seminar in Communication and Theatre Arts. One, two and three sem hours
A research-oriented course for graduate majors in communication and theatre arts.
Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 697, 698, 699 Independent Study. One, two and three sem hours
An intensive study of one or more problems under the direction of a University faculty member.
Prereq: Departmental permission.

DRAMA/THEATRE FOR THE YOUNG COURSES

CTA 501 Creative Drama and Role-Playing. Two sem hours
An introduction to understanding the creative process, dramatic play, gaming, and involvement drama as developmental learning.

CTA 502 Introduction to Theatre for the Young. Two sem hours
An introductory consideration of the scope, purposes, forms, and materials of theatre for the young.

CTA 504 Oral Interpretation of Literature and Language With the Young. Two sem hours
Emphasis on the study of interpreting literature orally for and with the young, including developing competence and understanding in the adult and child in interpretive and improvised work emerging from literature and language.

CTA 522 TIE: Theatre-in-Education. Two sem hours
A study of the origin, principles, and forms of TIE: Theatre-in-Education. Students will have opportunities to plan and evaluate TIE sessions.

CTA 523 Puppetry: Catalyst in Human Development. Two sem hours
Consideration of puppetry as a medium for learning and creative expression. Experience in constructing puppets for purposeful work with people. Examination of the applications of puppetry to many disciplines.

CTA 524 Developmental Drama/Theatre with Handicapped Persons. Two sem hours
Study of principles, theories, and practices of developmental drama/theatre for handicapped persons. Applications to educational, recreational, and institutional settings will be stressed.

CTA 525 Developmental Drama/Theatre in Recreational Settings. Two sem hours
An exploration of the theory and practice of developmental drama/theatre in various recreational settings, such as camps, parks, community centers, Girl Scouts, 4-H.

CTA 528 Developmental Drama/Theatre in Religion. Two sem hours
Consideration of and experience in uses of developmental drama/theatre for various religious settings and purposes.

CTA 565 Studies in Drama/Theatre for the Young. Two sem hours
Studies in the history, theory and techniques of drama and theatre for/with the young. Selection of focus is made by individual students in the group, according to their particular interests.
Prereq: CTA 323 Improvising and Role-Playing or CTA 501 Creative Drama and Role-Playing and either CTA 322 Theatre for Children or CTA 502 Introduction to Theatre for the Young.

CTA 590, 591, 592 Special Topics in Communication and Theatre Arts. One, two and three sem hours
Students will investigate a particular topic which is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate student or qualified senior in communication and theatre arts.

CTA 606, 607, 608 Colloquium in Communication and Theatre Arts. One, two and three sem hours
Students will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission required.

CTA 627 The Playwright and the Young Audience. Three sem hours
A study of dramatic literature for the young, from developmental as well as artistic viewpoints and in contexts of the main body of dramatic literature and children's literature, and the total educational experience of children and adolescents.

CTA 657 Advanced Improvisation. Three sem hours
A study of spontaneous dramatic play meant to develop deeper self-discipline and freedom and to extend resources for teaching, directing and acting.
Prereq: Graduate student in communication and theatre arts.

CTA 658 Theatre for Children. Three sem hours
An extensive study of the nature and range of theatre experiences for children and adolescents.
Prereq: Graduate student in communication and theatre arts.

CTA 677 Research Techniques in Communication and Theatre Arts. Two sem hours
An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive and experimental research; professional writing. (Winter semesters)
Prereq: Fifteen hours of credit in communication and theatre arts.

CTA 679, 680, 681 Special Topics in Communication Theatre Arts. One, two and three sem hours
Students will investigate a particular topic which is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate student in communication and theatre arts.

CTA 682, 683, 684, 685 Workshops in Communication and Theatre Arts. One, two, three and four sem hours
Students will be provided practical and theoretical study in a selected topic area. *Offered on a credit/no credit basis.*
Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission.

CTA 686, 687, 688, 689 Cooperative Education in Communication and Theatre Arts. One, two, three and four sem hours
One term of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. *Offered on a credit/no credit basis.*
Prereq: Twenty hours of credit in communication and theatre arts; approval by Cooperative Education Office and the department.

CTA 690 Degree

Requirement: Examination. One sem hour

An examination over the student's field of study conducted by a departmental faculty committee from assigned readings. *Offered on a credit/no credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirements:

Thesis. One, two and three sem hours

A research-oriented study conducted under the supervision of a departmental faculty committee. *Offered on a credit/no credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirement:

Project. One, two and three sem hours

A theory-application project conducted under the supervision of a departmental faculty committee. *Offered on a credit/no credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

**CTA 693, 694, 695 Seminar
in Communication and
Theatre Arts.**

One, two and three sem hours

A research-oriented course for graduate majors in communication and theatre arts.

Prereq: Graduate major in communication and theatre arts and departmental permission.

CTA 697, 698, 699 Independent

Study. One, two and three sem hours

An intensive study of one or more problems under the direction of a University faculty member.

Prereq: Departmental permission.

OTHER COURSES FOR CREDIT TOWARD MASTER OF ARTS IN COMMUNICATION AND THEATRE ARTS

The following 400-level courses also are available to graduate students. *A maximum of nine hours of 400-level course work is permitted in the earning of any graduate degree.* For descriptions of these courses, see the undergraduate catalog.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

Communication

- CTA 440 Survey of Public Address (3)
- CTA 460 Theory of Speech Criticism (3)
- CTA 466 Forensic Contest Speaking (1)
- CTA 475 Research in Speech Communication (3)

CTA 485 Theories of Speech Communication Behavior (3)

CTA 496 Seminar in Speech (2)

Theatre Arts

CTA 450 History of the Theatre to 1642 (3)

CTA 451 History of the Theatre: 1642 to the Present (3)

CTA 452 Arts Management (3)

CTA 453 Marketing The Arts (3)

CTA 454 Law, Public Policy and the Arts (3)

CTA 456 Experimental Approaches to Directing (1)

CTA 457 Tryouts and Auditions (1)

CTA 458 Style for the Actor (3)

CTA 459 Style for the Director (3)

CTA 461 Musical Theatre Acting (2)

CTA 462 Directors on Directing (2)

CTA 463 The American Musical Stage: 1900 to 1940 (2)

CTA 467 Theatre Practice (1)

Drama/Theatre for the Young

CTA 429 History and Theory of Developmental Drama/Theatre (3)

CTA 468 Interpretation (1)

Oral Interpretation

CTA 410 Oral Interpretation of Shakespeare (3)

CTA 411 Advanced Problems in Interpretation (3)

CTA 412 Interpretation of Poetry (3)

CTA 414 Development and Theory of Oral Interpretation (3)

Telecommunications and Film

CTA 431 Advanced Radio Production and Direction (3)

CTA 432 Advanced Television Production and Direction (3)

CTA 445 Film Theory and Criticism (3)

CTA 446 Contemporary Problems in Telecommunications (3)

CTA 447 Radio-Television Station Management (3)

Speech Improvement

CTA 400 Phonetics and Dialects of Spoken English (3)

CTA 402 Voice Development (1)

CTA 404 Dynamic Speaking Skills (3)

CTA 405 Voice and Dialects (3)

Special Topics

CTA 477 Special Topics (1)

CTA 478 Special Topics (2)

CTA 479 Special Topics (3)

Additional 400-level undergraduate courses also are available to graduate students under special circumstances. On this matter the student should have a clear understanding with the department and The Graduate School before expecting to use such courses toward a master of arts or a master of fine arts in the Department of Communication and Theatre Arts.

COMPUTER SCIENCE

George E. Haynam
Department Head
511-A Pray-Harrold
487-1063

William W. McMillan
Coordinator of Advising
511-G Pray-Harrold
487-0110, 487-1063

Mildred D. Lintner
Director, Computer Science Teacher Education
511-B Pray-Harrold
487-1104, 487-1063

The Department of Computer Science offers as cognates a variety of graduate courses for computer science professionals, prospective high school teachers of computer science, and other graduate students. The purpose and the objectives of these course offerings are:

- to serve the needs of able and qualified students intent on increasing their knowledge, abilities, and stature in the field of computer science;
- to provide an environment conducive to research in computer science; and
- to address the needs of teachers who pursue certification in computer science.

Secondary Teacher Certification Endorsement

The graduate certification endorsement track addresses the needs of computer teachers already certified in other content areas of our secondary school system. Successful completion of the program leads to a certificate endorsement in computer science.

Certification Endorsement Admission

Students must satisfy requirements of the Graduate School and hold a currently valid Secondary Teaching Certificate issued by the State of Michigan Department of Education.

The Teacher Certification Endorsement Program requires 23 semester-hours as follows:

CSC 136	Computers for the Non-Specialist (3)
CSC 138	Computer Science I (3)
CSC 504	Fundamentals of Computer Science I (4)
CSC 505	Fundamentals of Computer Science II (4)
CSC 336	Programming Languages for Educators (3)
CSC 340	Applications in Computer Science (3)
CSC 546	Methods of Teaching Computer Science in the Secondary School (3)

The Computer Science Department also offers a graduate certificate in artificial intelligence, which is for students who have a bachelor's degree and are interested in graduate studies more specialized than a master's program.

GRADUATE CERTIFICATE ADMISSION

Students must satisfy admission requirements of The Graduate School; have the equivalent of a minor in computer science; and have the following minimum grade point averages: 3.0 in computer science courses and 2.75 in either all mathematics courses taken or in the last six semester hours of mathematics taken. Students must be admitted to the graduate certificate program before enrolling in required course work.

The graduate certificate requires 12 semester hours as follows:

CSC 502	Programming in LISP (1)
CSC 503	Programming in Prolog (1)
CSC 531	Automata, Computability and Formal Languages (3)
CSC 532	Artificial Intelligence (3)
CSC 632	Automated Reasoning (3)
CSC 693	Seminar in Artificial Intelligence (1)

GRADUATE CERTIFICATE REQUIREMENTS

- The graduate certificate consists of at least 12 graduate-level credit hours.
- Not more than one 400-level course may be used on the graduate certificate program.
- A minimum grade point average of 3.0 ("B") must be achieved to obtain either certificate.
- Credits earned for the graduate certificate or advanced graduate certificate programs may apply, subject to applicability, to a graduate degree.
- All requirements for either certificate must be completed within three years from the time of first enrollment.

The Computer Science Department offers a broad range of graduate courses, including thesis supervision, in support of the master of arts in mathematics with a concentration in computer science, a program housed in the Department of Mathematics.

COMPUTER SCIENCE COURSES

CSC 502 Programming in LISP. One sem hour Introduction to the LISP language with emphasis on artificial intelligence applications. Pure LISP, built-in and user-defined functions, PROG feature, MAP-functionals, property lists.

Prereq: CSC 238 Computer Science II, or CSC 504 Fundamentals of Computer Science I, or departmental permission.

CSC 503 Programming in Prolog. One sem hour
An introduction to one of the most widely used languages of artificial intelligence. Topics include Prolog's inference procedure, assertions of facts and rules, recursion, list structures, functors, the cut, numerical operations, and principles of good Prolog style.

Prereq: CSC 337 Programming Languages, CSC 502 Programming in LISP, and knowledge of predicate logic; or departmental permission.

CSC 504 Fundamentals of Computer Science I. Four sem hours

An accelerated course covering the content of CSC 238 Computer Science II and CSC 334 Data Structures. Includes structured programming in Pascal, recursion, topics in data structures and an introduction to algorithm analysis. No credit CSC 334 Data Structures or equivalent.

Prereq: Graduate standing, CSC 137 Introduction to FORTRAN Programming, CSC 237 Computer Programming and Numeric Methods or equivalent, MTH 119 Mathematical Analysis for Social Sciences II or MTH 120 Calculus.

CSC 505 Fundamentals of Computer Science II. Four sem hours

An accelerated treatment of topics from CSC 239 Assembly and Machine Language Programming and CSC 338 Computer Organization. Machine language and arithmetic. Assembly language programming. Implementation of high level run time structures. Structure of assemblers, loaders, and command interpreters. Logic design and computer architecture. No credit CSC 239 Assembly and Machine Language Programming, CSC 338 Computer Organization or equivalent.

Prereq: Graduate standing; CSC 504 Fundamentals of Computer Science I or departmental permission.

CSC 530 Formal Methods in Software Development. Three sem hours

Principles of logical reasoning and their application to the development of reliable software, propositional and predicate logic, mathematical induction, semantics of control and data structures. Examples drawn from various applications areas. Emphasis on the use of formal methods as practical tools that aid the software development process.

Prereq: CSC 334 Data Structures or CSC 504 Fundamentals of Computer Science I, MTH 121 Calculus II and MTH 122 Elementary Linear Algebra.

CSC 531 Automata, Computability and Formal Languages. Three sem hours

A survey of the principal mathematical models of computation and formal languages. Finite automata, regular languages and sets, the Chomsky hierarchy, context-

free languages, computability and undecidable problems, computational complexity and NP-completeness. *Prereq: CSC 330 Discrete Mathematical Structures and CSC 334 Data Structures or CSC 504 Fundamentals of Computer Science I.*

CSC 532 Artificial Intelligence. Three sem hours
Introduces the student to basic concepts and techniques of artificial intelligence. Strategies for choosing representations, notational systems and structures; search strategies; control issues; examples of current systems in natural language processing, pattern recognition, problem solving, learning and information retrieval. Students with no prior knowledge of LISP should take CSC 502 Programming in LISP concurrently.

Prereq: CSC 334 Data Structures or CSC 504 Fundamentals of Computer Science I, CSC 337 Programming Languages.

CSC 533 Computer Communication Networks and Distributed Systems. Three sem hours

A study of networks of interacting computers. Principles of data communication, major national and international protocols. Models for network design and analysis. Local and long-haul networks. Distributed processing, distributed databases and network and distributed operating systems. A laboratory project involving a network of microcomputer systems.

Prereq: CSC 330 Discrete Mathematical Structures, CSC 433 Computer Operating Systems, MTH 121 Calculus II and MTH 122 Elementary Linear Algebra.

CSC 534 Database Management Systems Design. Three sem hours

File and data organization techniques. The hierarchical, network, and relational data models with examples. Query facilities. Data normalization. Security and integrity. Design and implementation of a simple DBMS system.

Prereq: CSC 530 Formal Methods in Software Development and either CSC 338 Computer Organization or CSC 505 Fundamentals of Computer Science II.

CSC 537 Advanced Computer Graphics. Three sem hours

Mathematics for 3D graphics. Polygon clipping; polygon filling; modeling methods; 3D transformations; parallel and perspective projections; hidden line and hidden surface removal algorithms; shading and color models.

Prereq: CSC 438 Computer Graphics or CSC 437 Microcomputer Graphics.

CSC 538 Advanced Computer Organization. Three sem hours

Processor design-fixed and floating point arithmetic processing and non-arithmetic processing. Control design and microprogramming. Memory organization and

input-output. System organization. Case studies will be drawn from computer systems designed to make special types of processing more efficient. Stack computers, pipelined processors, and vector computer multi-processing.

Prereq: CSC 431 Systems Programming and CSC 433 Computer Operating Systems.

CSC 539 Software Design and Development. Three sem hours

Software engineering techniques for the organization, management, and development of a large software project. Specification, structured design, segmentation, documentation.

Prereq: CSC 530 Formal Methods in Software Development.

CSC 546 Methods of Teaching Computer Science in the Secondary School. Three sem hours

This course considers computer science programs in the high school and presents information and materials needed to prepare students for the teaching of computer science in these schools. Topics will include organization and content, methods of teaching and learning, security and maintenance of equipment, professional journals and magazines available for future growth, copying software and the legality of software duplication dealing with diversity of abilities, problem solving skills, and strategies for debugging programs. In addition, this course will make use of teaching experience and background of the returning student. Time will be spent "connecting" their talents to the computer science area.

Prereq: CSC 505 Fundamentals of Computer Science II or equivalent.

CSC 590, 591, 592 Special Topics in Computer Science. One, two and three sem hours

A graduate level course in a specific area of computer science, to be determined by the field of specialization of the instructor and the interest of the students.

Prereq: Graduate standing and consent of the instructor.

CSC 630 Advanced Compiler Construction. Three sem hours

An introduction to the major methods of compiler implementation. Lexical analysis, LL and LR parsing, semantic analysis and code generation, error detection and recovery, code optimization. Compiler engineering techniques including portability, validation and the use of automated compiler-writing tools. Course project will involve implementation of a compiler.

Prereq: CSC 430 Compiler Construction and CSC 531 Automata, Computability and Formal Languages.

CSC 632 Automated Reasoning. Three sem hours
A theoretical and practical survey of different reasoning techniques, both classical and non-classical, and methods for implementing them as computer programs. Topics will include resolution proofs, fuzzy logic, non-monotonic reasoning, default reasoning and uncertainty measures. Applications will include expert systems.

Prereq: CSC 503 Programming in Prolog (maybe taken concurrently), CSC 532 Artificial Intelligence.

CSC 633 Advanced Operating Systems. Three sem hours

Selected topics from areas such as concurrent processing, memory management, resource allocation and scheduling, multi-processing and multi-programming, protection, performance evaluation, and modeling will be covered in depth.

Prereq: CSC 431 Systems Programming, CSC 433 Computer Operating Systems, CSC 530 Formal Methods in Software Development, MTH 370 Probability and Statistics or MTH 571 Mathematical Statistics I: Probability Theory.

CSC 635 Real Time Processing. Three sem hours

An introduction to the problems, concepts and techniques involved in computer systems that must interface with external devices; computer characteristics needed for real time use, operating system considerations, analog signal processing and conversion, inter-computer communication. Students will be involved in several laboratory projects involving a mini- or micro-computer system.

Prereq: CSC 433 Computer Operating Systems, CSC 530 Formal Methods in Software Development and MTH 325 Differential Equations or MTH 425 Mathematics for Scientists.

CSC 660 Software Engineering Practicum. Three sem hours

Working in a software project team, students will develop a large software system, carrying the project through from requirements analysis to acceptance testing. Teams will analyze "live" problems, that is, projects selected for their functionality to the user(s) involved. *This is a laboratory course with formal class meetings for only the distribution of projects.*

Prereq: CSC 443 Software Engineering Principles and CSC 539 Software Design and Development.

CSC 677, 678, 679 Special Topics in Computer Science. One, two and three sem hours

A graduate level course in a specific area of computer science, to be determined by the field of specialization of the instructor and the interest of the students.

Prereq: Graduate standing and permission of the instructor.

CSC 690, 691, 692

Thesis.

One, two and three sem hours

Prereq: Departmental permission.

CSC 693 Seminar.

One sem hour

CSC 697, 698, 699 Independent

Study.

One, two and three sem hours

An intensive study of a problem or implementation of a project under the direction of a member of the computer science graduate faculty.

Prereq: Six hours of graduate computer science courses and departmental permission.

OTHER COURSES FOR GRADUATE CREDIT

The following courses also may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.* Information about courses in computer science not listed may be obtained from the coordinator of advising, Dr. William W. McMillan.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

CSC 430	Compiler Construction (3)
CSC 431	Systems Programming (3)
CSC 433	Computer Operating Systems (3)
CSC 435	Introduction to Microprocessors (3)
CSC 437	Microcomputer Graphics (3)
CSC 438	Computer Graphics (3)
CSC 441	Computing Network Principles (3)
CSC 442	Database Principles (3)
CSC 443	Software Engineering Principles (3)
CSC 477, 478, 479	Special Topics in Computer Science (1,2,3)
CSC 490	Seminar and Project Design for Educators (3)

ECONOMICS

Young-Iob Chung
Department Head
703 Pray-Harrold
487-3395

Raouf S. Hanna
Coordinator of Advising
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487-0003

The Department of Economics offers three master of art degree programs: master of arts in economics, master of arts in applied economics and master of arts in development, trade and planning. These programs are designed to accommodate students with varied backgrounds and needs, and consequently admissions and degree requirements are different for each. The programs prepare students for careers in business, industry, and government service. They also provide training for students who intend to pursue the study of economics at more advanced levels. They offer sufficient flexibility to meet the career objectives of students with various interests.

Together the three programs can accommodate students with undergraduate backgrounds in fields ranging from mathematics and engineering, economics and business, to political science, public administration, and liberal arts.

GENERAL ADMISSION REQUIREMENTS

Admission to the program is available in three ways.

1. Degree Admission

Degree admission to the graduate programs is available to those meeting the following requirements:

- hold a bachelor's degree from an accredited college or university;
- have an undergraduate grade point average of at least 2.5 ("A" = 4.0);
- satisfy the undergraduate and/or course requirements for the specific program, including the equivalent of ECO 301 Intermediate Macroeconomic Analysis, ECO 302 Intermediate Microeconomic Analysis and ECO 310 Economic Statistics.

2. Conditional Admission

Conditional admission may be granted to those students not meeting the standards stated in 1.c. above but who show promise. Students who are conditionally admitted are required to overcome specified deficiencies existing at the time of admission. Such students must maintain an average grade of "B." A maximum of 12 hours earned as a conditionally admitted student may be applied toward the M.A. degree.

3. Non-Degree Student Status

Non-degree student status is available for those not qualified for degree or conditional admission, or for those who wish to take courses for self-improvement and are not interested in obtaining a degree.

MASTER OF ARTS IN ECONOMICS

The master of arts in economics provides a basic understanding of theoretical foundations and tools of economic analysis so that students gain competence in economic theory and its uses. The program exposes students to a variety of areas of economic study and enables them to concentrate in a particular field through course work, independent study, and research.

This program prepares students for positions in business, industry, and government service. Many of our former students are now active in banking, insurance, investment, consulting, hospital administration, public utilities, and manufacturing. It also provides training for students who intend to pursue the study of economics at more advanced levels, and for those who plan to teach economics at a two-year community college. The program offers sufficient flexibility to meet the career objectives of students with various interests.

Admission Requirements

Applicants to this program must meet the general admission requirements and have as a minimum an undergraduate major in economics (20 credit hours).

Degree Requirements

In addition to the general requirements established by The Graduate School, the student shall:

1. Complete a minimum of 30 hours of graduate credit in economics (up to six hours of cognates may be substituted upon approval).
2. Demonstrate research ability by successfully completing either:
 - a. a master's thesis; *or*
 - b. the graduate research seminar (ECO 604) and one supervised research paper approved by departmental faculty.
3. Satisfactorily complete, with a ("B"- or better), the following:
 - ECO 415G Introduction to Econometrics (3)
 - ECO 511 Mathematical Economics (3)
 - ECO 601 Macroeconomic Analysis (3)
 - ECO 602 Microeconomic Analysis (3)

MASTER OF ARTS IN APPLIED ECONOMICS

The need for economists capable of applying their special skills to real-life situations and problems has increased greatly during the past decade. This program provides an organized and carefully developed study of applied economics. While the program satisfies the

general education requirements of the economics profession, the focus is specifically on filling the need for empirically oriented applied economists.

In addition to the sequence of core courses, the program emphasizes research opportunities and the utilization of quantitative approaches. Extensive use of computer techniques comprise an integral part of the program.

The program introduces students to the art of model building for the purpose of analyzing complex public policy issues, such as taxation, transportation, energy, environment, technology, education, demography, health care, and similar topics. The program also provides students with modern techniques of model estimation, assessment, simulation, and forecasting.

Admission Requirements

Applicants to this program must meet the general admission requirements and have a bachelor's or master's degree with a minor/major in mathematics or economics, or a bachelor's degree in engineering, or a baccalaureate degree with adequate mathematics background.

Degree Requirements

In addition to the degree requirements for the master of arts in economics, the student shall satisfactorily complete the following courses:

- ECO 606 Applied Microeconomics (3)
- ECO 607 Applied Macroeconomics Analysis (3),
or
- ECO 545 Economic Forecasting and Policy (3), *and*
- ECO 510 Applied Economics Statistics (3), *or*
- ECO 515 Econometrics: Theory and
Application (3)

MASTER OF ARTS IN DEVELOPMENT, TRADE AND PLANNING

The need for administrative personnel with backgrounds in economic development, trade and planning has become more pressing during the past decade. This is the result of increased international interdependence and of growing demand for systematic planning in both private enterprise and government operations. Developing nations have a special need for professionals trained in this area. This program prepares students for careers as staff economists in government, business, and international organizations.

Students are provided with (a) an historical review of policy experience in various nations regarding planning and development issues; (b) an understanding of economic theory and its applications to planning and development; (c) training in the use of quantitative methods relevant to planning and development; (d) detailed knowledge of the theoretical and empirical aspects of international trade; and (e) the requisite skills to evaluate specific policy issues. The various segments

are coordinated so that a logical progression in course work can be completed efficiently, and the interrelationship between different segments can be fully appreciated by students.

Admission Requirements

Applicants to this degree program must meet the general admission requirements and have a bachelor's degree in economics (major/minor), or a bachelor's or master's degree in business administration, or a baccalaureate degree in an equivalent or appropriate field.

Degree Requirements

In addition to the degree requirements for the Master of Arts in economics, the student shall satisfactorily complete four courses selected from:

ECO 472G	The Soviet Economy (3)
ECO 575	The Economics of Socialism (3)
ECO 580	International Trade (3)
ECO 581	The International Monetary System (3)
ECO 585	Economic Growth and Development (3)
ECO 586	Economic Planning (3)
ECO 587	Case Studies in Economic Development (3)

ECONOMICS COURSES

BASIC COURSES FOR NON-MAJORS

ECO 500 Economics: Principles and Institution.

Three sem hours

Study of major economic institutions, the basic analytic tools of economic theory and their use. *Not open to students having had ECO 201 and ECO 202 Principles of Economics I and II, or equivalent.*

ECO 501 Macroeconomic Theory and Policy.

Three sem hours

National income analysis, employment theory, monetary theory and practice and their application to economic policy. This course is designed for graduate students majoring in fields other than economics, primarily those in the College of Business. *Not open to students who have had ECO 301 Intermediate Macroeconomic Analysis.*

Prereq: One course in economics or departmental permission.

ECO 502 Microeconomic Theory and Policy.

Three sem hours

Analysis of the economic behavior of individuals and firms under various market conditions, the determination of relative prices, the allocation of resources, and related problems. This course is designed for graduate students majoring in fields other than economics, primarily those in the College of Business. *Not open to*

students who have had ECO 302 Intermediate Microeconomic Analysis or equivalent.

Prereq: One course in economics or departmental permission.

ECO 503 Contemporary Economic

Problems.

Three sem hours

Analysis of one or more current economic issues with a goal of better public understanding of the issue implications of policy solutions. *Not open to economics majors.*

Prereq: One course in economics or departmental permission.

ECO 508 International Trade.

Three sem hours

(Formerly International Economics)

A study of the causes and economic effects of trade; commercial policies and their effects on trade; trade issues and conflicts; and international factor movements.

Prereq: ECO 501 Macroeconomic Theory and Policy and ECO 502 Microeconomic Theory and Policy or equivalent, or departmental permission.

ECO 509 International Monetary

Economics.

Three sem hours

A study of the foreign exchange market, exchange rate systems, the balance of payments, macroeconomic aspects of international trade, the institutions and problems of the international monetary system.

Prereq: ECO 501 Macroeconomic Theory and Policy and ECO 502 Microeconomic Theory and Policy.

COURSES FOR DEGREE PROGRAM

ECO 506 Development of

Economic Analysis.

Three sem hours

Review of major theories and concepts in the development of economics as a scientific discipline. Emphasis is directed toward changing methods and theories of economic analysis and their implications for economic policy, including pre-classical, classical and neoclassical, Keynesian and neo-Keynesian thought.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 510 Applied Economic Statistics.

Statistics.

Three sem hours

Application of statistics and quantitative analysis to economic problems using computer techniques.

Prereq: ECO 310 Economic Statistics or equivalent or departmental permission.

ECO 511 Mathematical Economics. Three sem hours
Study of economic models, matrix algebra and linear economic models, linear programming and game theory, optimization problems and calculus of variations.

Prereq: MTH 119 Mathematical Analysis for Social Science II or MTH 120 Calculus and ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 515 Econometrics: Theory and Applications.

Three sem hours
Development and analysis of econometric models using the tools of statistics for estimation. Analysis of the simultaneous-equation problems, including identification problems, indirect least squares, two stage least squares, limited-information methods, full-information methods and three stage least squares.

Prereq: ECO 415 Introduction to Econometrics or departmental permission.

ECO 520 Analytic Labor Economics.

Three sem hours
Application of microeconomic theory in analyzing labor market behavior. Topics covered include labor supply, labor demand, investment in human capital, worker mobility and a critique of the microeconomic approach to labor economics.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 522 Collective Bargaining. Three sem hours
Labor and management relations considered from the point of view of the two parties and the public welfare; labor contracts. Traditional and current areas of dispute and methods of settlement.

Prereq: Two courses in economics or departmental permission.

ECO 524 White Collar and Public Employee Unionism.

Three sem hours
An analysis of the special characteristics of labor organizations and collective bargaining patterns in public employment and in selected white collar occupations of the private sector of the economy.

Prereq: Two courses in economics or departmental permission.

ECO 526 Human Resources and Public Policy.

Three sem hours
An economic analysis of human resource development with an emphasis on labor market issues. Topics include public employment policy, labor market discrimination and the role of education in the labor market.
Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 533 Agricultural Economics. Three sem hours
Economic analysis of the agricultural sector including the study of its institutions, land use, tenure systems, techniques of production, entrepreneur development, marketing arrangements, capital-credit use and agriculture's role in economic development.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 534 Regional and Urban Economics.

Three sem hours
Examination of problems of economic adjustment and development of regions, including inner city and metropolitan areas. Mass transit, public finance, housing, economic, base studies, race distribution, and poverty will be examined.

Prereq: Six hours of economics or departmental permission.

ECO 540 Monetary Economics. Three sem hours
The development of monetary and central banking theory; policy applications and limitations in the context of the relationships between money, prices, national income, and the balance of payments.

Prereq: ECO 301 Intermediate Macroeconomic Analysis or equivalent.

ECO 545 Economic Forecasting and Policy.

Three sem hours
(Formerly ECO 555 Stabilization Policy)
Examines the use of macroeconomic theory and forecasting techniques in the formulation and evaluation of economic stabilization policies.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 310 Economic Statistics or equivalent.

ECO 550 Public Finance: Analysis and Policy.

Three sem hours
Detailed, theoretical analysis of the problems of budgeting and budget techniques, methods to evaluate expenditures, efficiency, and equality considerations in tax policy, problems of stabilization policy and growth policy evaluation of the impact and importance of national debt.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 551 State and Local Government Finance.

Three sem hours
Economic analysis of expenditures, revenues and debt management of state and local governments.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent or departmental permission.

ECO 560 Economics of Industrial**Organization. Three sem hours**

The enterprise sector of a capitalist economy; incidence of competition and monopolistic techniques in various industries and markets, market structure, conduct and performance, mergers and concentration and public policies.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 561 Economics of**Multinational Enterprise. Three sem hours**

Economics of international competition and monopoly. Analysis includes studies of direct foreign investment, national economic anti-trust policies, the multinational firm and its relation to trade and economic efficiency.

Prereq: ECO 480 International Economics or ECO 560 Economics of Industrial Organization or departmental permission.

ECO 562 Government and Business. Three sem hours

The political and economic functions of government, business corporations and financial mergers, direct control of business, control versus governmental ownership of utilities, governmental controls of agriculture and natural resources, the responsibility of government in maintaining employment.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 575 The Economics of Socialism. Three sem hours

Survey of the economic thought bases of the various types of socialism followed by a comprehensive study of the planning and operation of modern socialist economics.

Prereq: Six hours of economics or equivalent or departmental permission.

ECO 580 International Trade:**Theory and Policy. Three sem hours**

Study of the principle of comparative advantage, the determinants of the commodity composition of trade, international factor movements and commercial policies.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 581 The International**Monetary System. Three sem hours**

Theoretical and empirical examination of international monetary issues including the balance of payments, fixed vs. flexible exchange rates, stabilization policies in an

open economy, disturbance transmission mechanisms and interdependence, institutions.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 585 Economic Growth and**Development. Three sem hours**

Conditions, courses, and consequences of growth and development, instruments of expansion and control and important theories and models of growth. Economic growth in both the United States and underdeveloped countries.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 586 Economic Planning. Three sem hours

Study of the government's economic decision-making apparatus, the formulation of economic plans, the selection of optimal plans from among a feasible set, and the problems of transition from general to sectoral and decentralized plans.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 587 Case Studies in Economic**Development. Three sem hours**

Survey of economic development in selected countries or regions with emphasis on development policies, theoretical applications, and economic structures of countries or regions surveyed.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

**ECO 592 Special Topics in Economics. Three sem hours
(Formerly ECO 594)**

An advanced level course in a specific area of economics.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

**ECO 594 Workshop in Economics. Two sem hours
(Formerly ECO 595)**

Selected principles of economics presented by visiting consultants. Class discussion on phases of contemporary economics.

ECO 601 Macroeconomic Analysis. Three sem hours

National income accounting as a framework for economic analysis; determinants of consumption, investments and government expenditures; models of underemployment, and inflation.

Prereq: ECO 301 Intermediate Macroeconomic Analysis or equivalent or departmental permission.

ECO 602 Microeconomic Analysis. Three sem hours
Economic analysis of the behavior of individuals and firms, price determination in competitive and monopolistic markets, general static equilibrium, and the allocation of resources.

Prereq: ECO 302 Intermediate Microeconomic Analysis and ECO 511 Mathematical Economics or equivalent, or departmental permission.

**ECO 604 Research Seminar
in Economics.** Three sem hours
(Formerly ECO 504 Introduction to Research
Methods in Economics)

Examines selected issues of research methodology, procedures and techniques. Students conduct individual research projects, present their findings in a seminar format and submit a research paper.

Prereq: ECO 415 Introduction to Econometrics or equivalent.

ECO 605 Managerial Economics. Three sem hours
Application of economic analysis to decision making and business management, focusing on the areas of production, costs, as well as investment, pricing demand estimation and economic forecasting.

Prereq: ECO 501 Macroeconomic Theory and Policy, ECO 502 Microeconomic Theory and Policy and ECO 310 Economic Statistics or equivalent.

ECO 606 Applied Microeconomics. Three sem hours
Integrates microeconomic theory and quantitative methods, providing tools to formulate, estimate, and evaluate microeconomic relationships. Topics include: estimating demand functions (energy, housing, automobile demand and elasticities), Engel curves, production functions and cost functions.

Prereq: ECO 302 Intermediate Microeconomic Analysis and ECO 415 Introduction to Econometrics or equivalent.

**ECO 607 Applied Macroeconomic
Analysis.** Three sem hours
(Formerly Applied Economics)

Study complete macroeconomic models, using the computer's dynamic simulations to simultaneous economic system. Examples are money models, industrial organization, labor economic systems, health economics, and monetary and fiscal policy problems.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 415 Introduction to Econometrics or equivalent.

**ECO 690, 691, 692
Thesis.** One, two and three sem hours

Completion of research problems and writing thesis.

Prereq: Approved thesis proposal.

ECO 695 Seminar in Economics. Three sem hours
(Formerly ECO 596)

A seminar in advanced economic theory or policy open only to degree students of the department.

Prereq: Twelve hours toward M.A. degree.

**ECO 697, 698, 699 Independent
Study.** One, two and three sem hours
(Formerly ECO 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a member of the economics faculty.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses also may be taken for graduate credit and applied on the department's degree program providing prior approval has been given by adviser and The Graduate School. A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree. See the undergraduate catalog for course descriptions.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- ECO 405 Economic Analysis for Business (3)
- ECO 415 Introduction to Econometrics (3)
- ECO 420 Comparative Labor Unionism (3)
- ECO 422 Union Leadership (3)
- ECO 424 Seminar in Labor Issues (3)
- ECO 436 Health Economics (3)
- ECO 445 Economic Fluctuations and Forecasting (3)
- ECO 455 Cost Benefit Analysis (3)
- ECO 471 Case Studies of Developing Economics (3)
- ECO 472 The Soviet Economy (3)
- ECO 480 International Economics (3)

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
ECO 500*			X	
ECO 501*	X		(X)	X
ECO 502*	X	(X)		X
ECO 503*		+ #		
ECO 506	#			
ECO 508*	X			X
ECO 509*				X
ECO 510			#	
ECO 511				X
ECO 515		(X)	(X)	
ECO 520	+			
ECO 522				#
ECO 524				#
ECO 526	#			
ECO 533				#
ECO 534				#
ECO 540	#			X
ECO 545		(X)	(X)	
ECO 550	#			
ECO 551	#			
ECO 560				X
ECO 561	#			
ECO 562			#	
ECO 575				#
ECO 580	X			
ECO 581				X
ECO 585		(X)	(X)	
ECO 586	X			
ECO 601				X
ECO 602	X			
ECO 604	X			
ECO 606		(*)		
ECO 607			(*)	
ECO 695	+			

+ Courses offered on a two-year cycle during odd years.

Courses offered on a two-year cycle during even years.

X Courses offered during that semester.

(X) Courses offered each year in either spring or summer.

* Courses offered for non-majors

ENGLISH LANGUAGE AND LITERATURE

Marcia A. Dalbey
Department Head
612 Pray-Harrold
487-4220

James A. Reynolds
Coordinator of Advising
613-J Pray-Harrold
487-1363

Students enrolling in the program for the master of arts in English may choose one of five separate concentrations:

Literature
 Written Communication
 Children's Literature
 English Linguistics
 Creative Writing

Each of these concentrations is described on the following pages. Candidates for degrees in other departments may elect English Department courses as cognates.

GENERAL REQUIREMENTS

Admission Requirements

In addition to The Graduate School degree admission requirements set forth in the early pages of this catalog, the Department of English Language and Literature requires:

1. At least 24 hours of undergraduate English, excluding freshman composition, and a minimal undergraduate grade point average of 3.0. Applicants not meeting these standards may apply for conditional admission.
2. If the applicant's native tongue is not English, a TOEFL (Test of English as a Foreign Language) score of 570, or a score of 90 on the Michigan English Language Assessment Battery (MELAB) is required. These students also must pass the Test of Written English (TWE) with a minimum score of five. Students with TWE scores below five will be denied admission; students with TOEFL scores lower than 570 can be considered for conditional admission, but must retake the exam and attain a score of 570 by the end of the first semester of enrollment.

Degree Requirements

1. For the degree, a minimum of 30 semester hours of graduate work in a program of study approved by the coordinator of graduate studies, with a grade point average of 3.0 or better. A master's thesis is optional.

2. Exceptional students whose career or further educational goals require intensive research experience may elect to complete a thesis representing three semester hours credit. The thesis topic and design are developed by the master's candidate with the advice of a departmental graduate faculty member. The thesis must be submitted for the approval of a thesis committee.

Language Requirements

A candidate for the M.A. must demonstrate an understanding of the nature of language. The language requirement may be met in one of the following ways:

1. Twelve undergraduate credits in a foreign language with a "B" average, or evidence of equivalent mastery.
2. Six graduate credits in linguistics or philologically oriented courses in older English language and literature.

The coordinator of graduate studies is Professor James A. Reynolds. Members of the department Graduate Committee are available during regular office hours for information or counseling.

NOTE: Advanced 400-level undergraduate courses are also available to graduate students. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in an advanced 400-level undergraduate course for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN LITERATURE

Objectives of the Degree

The M.A. in English with a concentration in literature is designed to provide master's level competence in English and American literature.

The degree is an appropriate choice for candidates who anticipate teaching on the elementary, high school, or community college level. It prepares candidates who anticipate doctoral study in English or American literature. The degree provides a valuable educational background for library careers or for many professions where accuracy and clarity of expression, combined with a knowledge of literature, are desired (communication, government, advertising, business, editing, and publication). It also is useful for professions in which high value is placed on ease of communication and facility of expression, such as counseling, guidance, personnel relations, or management.

Requirements and Electives (24 credit hours)

A candidate completes a major of 18 hours in the department's courses in English and American literature (excluding children's literature, for which there is a separate degree). Six additional hours are taken from the department's wider offerings, without limitation as to field.

Cognates or Additional Electives (six credit hours)

A candidate takes up to six hours of cognate courses in other departments or up to six hours of additional electives in the English Department.

M.A. Examination

During the semester before graduation, a candidate is required to pass a written examination covering major works of English and American literature. A new list of works is posted each September.

COURSES FOR MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN LITERATURE

LIT 511 Literary Criticism. Three sem hours
A study of various approaches to literary criticism with application to specific works.
Prereq: Fifteen hours of credit in literature.

LIT 512 Middle English Literature. Three sem hours
A study of the genres of Middle English literature (chronicle, dialogue, exemplum, fable, romance, sermon, etc.).
Prereq: Fifteen hours of credit in literature.

LIT 520 Old English Poetry. Three sem hours
(Formerly LIT 420)
A study of old English prosodic conventions with a close reading of representative poems from various types and schools of Old English poetry.
Prereq: Three courses in literature.

LIT 523 Realism and Naturalism in the American Novel. Three sem hours
Realism and naturalism as theory and as practice in the late 19th and early 20th centuries, with emphasis on Howells, Twain, James, Crane, Norris and Dreiser.
Prereq: Fifteen hours of credit in literature.

LIT 525 Henry James. Three sem hours
Major novels, shorter fiction and literary criticism of Henry James.
Prereq: Fifteen hours of credit in literature.

LIT 526 The Harlem Renaissance and Beyond. Three sem hours
A study of Afro-American literature since 1920 with special emphasis on the 1920s and the influence of this period upon more contemporary works. Parallels will

be drawn between trends in Afro-American literature and American literature as a whole and between the Harlem Renaissance and the literature of the last decade.
Prereq: Fifteen hours of credit in literature.

LIT 530 Studies in Chaucer. Three sem hours
Intensive reading of Chaucer's major works and supplementary reading in Chaucerean criticism.
Prereq: Fifteen hours of credit in literature.

LIT 540 Elizabethan Drama. Three sem hours
The plays of Marlowe, Jonson and Webster, considered primarily for their intrinsic literary and dramatic merit and secondarily for the light they throw on Shakespeare's milieu. A greater understanding of the term "Elizabethan Drama."
Prereq: Fifteen hours of credit in literature.

LIT 541 Studies in Shakespeare. Three sem hours
Studies in the historical, biographical, textual, and critical scholarship relevant to two or three of Shakespeare's plays. Investigation, reports, papers.
Prereq: Fifteen hours of credit in literature, including one course in Shakespeare.

LIT 545 Studies in Renaissance Literature. Three sem hours
A specialized study of major non-dramatic poetry and prose of the English Renaissance (exclusive of the works of John Milton). Specific major authors to be studied may include Shakespeare, More, Sidney, Spenser, Marlowe, Bacon, Jonson, Donne, and Herbert.
Prereq: Fifteen hours of credit in literature.

LIT 551 Studies in Milton. Three sem hours
The complete poetry and selected prose of John Milton, with some attention to his intellectual milieu.
Prereq: Fifteen hours of credit in literature.

LIT 561 Studies in 18th Century Literature. Three sem hours
A specialized study of poetry and prose of a selected number of major authors of the Restoration and 18th century. Specific authors to be studied may include Dryden, Swift, Pope, Thompson, Collins, Gray, Johnson, Goldsmith, and Boswell.
Prereq: Fifteen semester hours of literature.

LIT 563 Studies in 18th Century Fiction. Three sem hours
A specialized study of major authors, genres and themes of 18th century fiction. The fiction studies will include works by such authors as Defoe, Swift, Fielding, Richardson, Sterne, Goldsmith, Walpole, and Smollett.
Prereq: Fifteen hours of credit in literature.

LIT 565 Studies in 19th Century British Fiction. Three sem hours
Specialized study of selected English novelists of the 19th century. Novelists studied may include Austen, Scott, Disraeli, the Brontes, Gaskell, Thackeray, Dickens, Eliot, Trollope, Meredith, Hardy, and others.
Prereq: Fifteen hours of credit in literature.

LIT 566 Studies in 20th Century British Fiction. Three sem hours
Specialized study of the work of two or three major 20th century British novelists such as Conrad, Lawrence, Ford, Woolf, Forster, Huxley, Cary, Durrell, and Greene.
Prereq: Fifteen hours of credit in literature.

LIT 567 Studies in 20th Century Irish Literature. Three sem hours
Specialized study in prose, poetry and drama of 20th century Irish literature with attention to such major figures as Yeats, Shaw, Joyce, Synge, O'Casey, O'Faolin, Beckett, Kavanagh.
Prereq: Fifteen hours of credit in literature.

LIT 568 Whitman and Dickinson. Three sem hours
The work of Whitman and Dickinson examined for its intrinsic value as poetry and as illustrative of the power of isolated poetic genius.
Prereq: Fifteen hours of credit in literature.

LIT 569 The American Renaissance: 1830-1860. Three sem hours
Specialized study of the work of three or four of the following writers: Cooper, Poe, Emerson, Thoreau, Hawthorne, Melville.
Prereq: Fifteen hours of credit in literature.

LIT 570 Studies in Romantic Literature. Three sem hours
(Formerly Wordsworth)
An intensive study of the poetry and nonfictional prose of at least two of the poets and essayists from the Romantic period (e.g., Blake, Wordsworth, Coleridge, Keats, Byron, Shelley, Hazlitt, DeQuincey, Lamb).
Prereq: Fifteen hours of credit in literature.

LIT 575 Studies in Victorian Literature. Three sem hours
(Formerly Carlyle and Arnold)
An intensive study of the poetry and nonfictional prose of at least two of the major writers from the Victorian period (e.g., Carlyle, Tennyson, the Brownings, Arnold, the Rossetis, Swinburne, Newman, Mill, Ruskin, Pater).
Prereq: Fifteen hours of credit in literature.

LIT 576 Studies in 20th Century**American Fiction.****Three sem hours**

Specialized study of two or three 20th century American novelists, such as Hemingway, Fitzgerald, Faulkner, Nabokov, and Bellow.

Prereq: Fifteen hours of credit in literature.

LIT 577 Studies in 20th Century**American Poetry.****Three sem hours**

Specialized study of the work of two or three major 20th century poets, such as Pound, Eliot, Stevens, Williams, Roethke, Robinson, Frost, e.e. cummings, Hart Crane, Robert Lowell.

Prereq: Fifteen hours of credit in literature.

LIT 580 Studies in Contemporary**Literary Trends.****Three sem hours****(Formerly The Making of the Modern Mind)**

Specialized study of the nature of contemporary literary developments with some attention to other cultural parallels, past and present. The particular focus of the course (poetry, fiction, drama, or criticism) in a given semester will be announced in the class schedule bulletin.

Prereq: Fifteen hours of credit in literature.

LIT 592 Special Topics.**Three sem hours****(Formerly LIT 596 Seminar in Special Topics)**

Topics will be announced from time to time. The following are examples of topics offered in recent years:

Joyce, Yeats, and Shaw

Southern Gothic Fiction

Medieval and Renaissance Allegory

Hemingway, Fitzgerald, and Faulkner

Prereq: Fifteen hours of credit in literature. Further prerequisites may be required for some topics.

LIT 697, 698, 699 Independent**Study.****One, two and three sem hours****(Formerly LIT 597, 598, 599)**

An intensive study of a problem or group of problems under the direction of a University faculty member. Not to be elected until a student has been accepted as a candidate for the master's degree in literature.

Prereq: Fifteen hours of credit in literature and permission of the Graduate Committee.

NOTE: Advanced 400-level undergraduate courses are also available to graduate students. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in an advanced 400-level undergraduate course for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN WRITTEN COMMUNICATION

In lieu of some of the 24 hours of undergraduate course work in English language, literature and composition required for admission to the program, candidates may submit extensive experience in professional writing or teaching equivalents. (See 1. under Admission Requirements.)

Objectives of the Degree

The M.A. in English with a concentration in written communication provides an opportunity for advanced studies in the relationship between rhetorical theory and composition skills, the cognitive processes of the writer, the nature of the English language and its embodiment in both practical and literary modes. Writing workshops reinforce candidates' writing ability and guide them in mastering the forms of expository, creative and technical writing. The teaching of composition at the elementary, secondary, and college levels is the focus of several elective options. Studies of research methods in composition aid the candidate in analyzing systematically both student and professional writing. This specialized program is consolidated through a required thesis or master's writing project.

The concentration is flexible enough to be an appropriate choice either for candidates preparing for careers in professional writing, editing or publishing, or in teaching writing at the elementary, secondary, or community college level. It also provides a thorough preparation for Ph.D. studies in rhetoric and composition.

Requirements

Ordinarily a candidate will complete 15 hours of required courses in writing and language theory, practice and research:

1. *Rhetorical Theory - 3 hours*
ENG 503 Writing and Rhetorical Theory
2. *Writing - 3 hours*
ENG 522 Advanced Writing Workshop
ENG 524 Advanced Technical Writing and Research
ENG 417G Writing about Controversies
ENG 422G Writer's Workshop: Fiction or Poetry
ENG 424G Technical Writing
ENG 426G Technical Editing
ENG 450G Children's Literature: Criticism and Response
JRN 423G Magazine Article Writing
JRN 453G Advanced Reporting
3. *Linguistics/Language - 3 hours*
LIN 501 Current Trends in Linguistics
LIN 502 History of Linguistics
LIN 525 Advanced English Syntax

- LIN 531 Semantics: The Study of Meaning
 LIN 532 Sociolinguistics
 LIN 533 General Psycholinguistics
 LIN 535 Discourse Analysis
 LIN 401G Introduction to Linguistic Science
 LIN 402G Modern English Grammar
4. *Research in Writing Theory and Practice* - 3 hours
 ENG 621 Research in the Theory and Practice of Writing
 (Required of candidates who will write thesis; optional for others.)
5. *Research Project or Portfolio* - 3 hours
 ENG 692 Thesis or
 ENG 693 Master's Writing Project

Literature (6 hours)

Select from literature course list.

Electives (3-6 hours)

- Teaching of writing - 3 hours
 ENG 504 Teaching Writing, K-12
 ENG 596 Teaching Composition on the College Level
- Additional practical writing courses - 3 hours
 Select from list 2. under requirements.
- Additional linguistic or language courses - 3 hours
 Select from list 3. under requirements.

Cognates (3-6 hours)

Suggested areas include: graphic design, public relations, communication theory, computer science, teaching English as a second language, reading, cognitive psychology, measurements and evaluation, descriptive statistics.

COURSES FOR MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN WRITTEN COMMUNICATION

ENG 503 Writing and Rhetorical Theory. Three sem hours
 (Formerly Rhetoric and Advanced Composition)

The reading, study, and analysis of representative selections from classical and modern rhetorical theorists. Emphasis on how to apply theory in writing for various audiences and situations and to the teaching of writing.

ENG 504 Teaching Writing, K-12. Three sem hours
 (Formerly Improving the Teaching of Writing)

A review of research and theory in teaching writing, with focus on designing methods and materials for classroom instruction in elementary/secondary schools.

ENG 522 Writing Workshop. Three sem hours

An advanced workshop seminar in creative writing, with sections in fiction, poetry, or translation, as specified in the schedule. The course may be repeated.

Prereq: Departmental permission.

ENG 524 Advanced Technical Writing and Research. Three sem hours
 (Formerly Technical Research and Report Writing)

This course continues ENG 424 Technical Writing and is designed to prepare students to write professionally in business and industry. Students will research appropriate information and prepare oral and written reports, proposals, brochures, and manuals.

Prereq: ENG 424 Technical Writing or equivalent.

ENG 596 Teaching Composition on the College Level. Three sem hours

A course in the methods of teaching English composition, with particular attention to beginning courses on the college and junior college level. *Required of all graduate assistants and open to other interested M.A. candidates.*

ENG 621 Research in Theory and Practice of Writing. Three sem hours

A course designed to introduce and prepare students in bibliography and methods of research on writing and writing instruction. Frequent projects requiring research and writing.

Prereq: Nine hours of composition program courses, including ENG 503 Writing and Rhetorical Theory.

ENG 692 Thesis. Three sem hours
 Original research or critical study designed and completed by the student under the guidance of the thesis director and committee.

Prereq: ENG 621 Research in Theory and Practice of Writing and departmental permission.

ENG 693 Master's Writing Project. Three sem hours
 The culmination of the professional writing student's program. Students will produce a portfolio in the intended professional area, and design and complete a research project related to the portfolio.

Prereq: ENG 524 Advanced Technical Writing and Research; six hours of graduate credit in appropriate writing courses.

ENG 697, 698, 699 Independent

Study in English. One, two and three sem hours
 An intensive study of a problem or research area not covered in regular courses; under the direction of a faculty member.

Prereq: Candidate for the M.A.; permission of the Graduate Committee.

NOTE: Advanced 400-level undergraduate courses are also available to graduate students. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in an advanced 400-level undergraduate course for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN CHILDREN'S LITERATURE

Objectives of the Degree

The M.A. in English with concentration in children's literature provides an opportunity for advanced studies in all major areas of children's literature, folklore, mythology, and writing for children.

Candidates usually begin with an introduction to the major genres of children's literature. Extensive reading, criticism and scholarship are emphasized. A second course is devoted to methods of teaching literature to children and is particularly recommended for prospective teachers. A third course traces the historical development of children's literature since the introduction of printing into England. In addition, there is a special topics course that varies from semester to semester and can be repeated for credit. A maximum of six hours of special topics courses may be used on a degree program.

This concentration is valuable not only for teachers of elementary, middle, or junior high schools, but also for librarians, special education teachers, reading specialists, recreation supervisors, editors and representatives in publishing houses specializing in children's books, writers of children's books, directors of religious education, youth workers in social service agencies, day care center directors, and bookstore managers. It also provides preparation for teachers of children's literature in two- and four-year colleges.

Requirements

Ordinarily a candidate will complete a major of the 15 required hours from the following:

- LIT 516 Major Genres in Children's Literature
- LIT 517 Teaching Children's Literature
- LIT 518 History of Children's Literature
- LIT 519 History of Children's Literature:
Twentieth Century
- LIT 581 Critical Approaches to Mythology
- LIT 582 Wisdom of the People: Ballads, Legends
and Tales
- LIT 583 Literature for Early Childhood
- LIT 584 Literature for Adolescents
- LIT 592 Special Topics

Twelve additional hours may be chosen from appropriate English courses for which graduate credit is given.

Cognates (zero to six hours)

During the semester before graduation, a candidate is required to pass an examination. A list of comprehensive questions will be given the candidate well in advance of the proposed graduation date. Several of these questions will be discussed informally with the children's literature faculty and an appropriate certificate awarded. *All students admitted to the program beginning fall 1986, are required to take the examination.*

COURSES FOR THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN CHILDREN'S LITERATURE

**LIT 516 Major Genres in
Children's Literature. Three sem hours**
An intensive study of the major genres of children's literature with emphasis on important representative examples and related criticism.

**LIT 517 Teaching of
Children's Literature. Three sem hours**
A course concentrating on the value of literature for children with discussion and demonstration of various techniques used in teaching it. Additional readings in selected genres will be required. Offered for anyone planning to work with children, preschool through grade nine.

**LIT 518 History of
Children's Literature. Three sem hours**
An examination of books for children written before the present century. Emphasis will be placed on major authors and movements from 1744 to 1908 and on what these reveal about changing attitudes toward children and the corresponding changes in the literature written for them.

**LIT 519 History of Children's Literature:
Twentieth Century. Three sem hours**
Major writers and movements from World War I to the present with emphasis upon what these reveal about changing attitudes toward children and young people and the literature written for them.
Prereq: 15 hours of literature or permission of instructor.

**LIT 581 Critical Approaches to
Mythology. Three sem hours**
**(Formerly Comparative Mythology: Heaven,
Hell and the World Between)**
An investigation of myths from many cultures demonstrating individual responses to universal questions of human existence. Students will respond critically to the various theories of myth through their reading and analysis of myths as literature.
Prereq: Fifteen hours of literature or permission of instructor.

LIT 582 Wisdom of the People:

Ballads, Legends and Tales. Three sem hours
Reading and analysis of printed tales, legends and ballads using the tools of folklore scholarship. Students also collect and analyze oral materials.

Prereq: Fifteen hours of credit in literature or permission of instructor.

LIT 583 Literature for Early**Childhood.****Three sem hours**

Prose and poetry for preschool and early elementary children with emphasis on recent research in illustration and literature and its application in selecting, evaluating and using books with the young.

Prereq: Fifteen hours of literature or permission of instructor.

LIT 584 Literature for Adolescents. Three sem hours

An examination of literature for adolescents, emphasizing criteria for selection and evaluation, along with consideration of audience, genre and censorship. Students will be expected to read and respond critically to historical and contemporary literature written for adolescents.

Prereq: LIT 516 Major Genres in Children's Literature or permission of instructor

LIT 592 Special Topics.**Three sem hours**

Topics will be announced each year. Some from the recent past include: Literature for Younger Children, Recent Fiction; Poetry for Children; The Golden Age of Children's Literature; Fantasy for Children and Young People.

Prereq: Fifteen hours of credit in literature.

ENG 692 Thesis.**Three sem hours**

Original research or critical study designed and completed by the student under the guidance of the thesis director and committee.

Prereq: ENG 621 Research in Theory and Practice of Writing and department permission.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN ENGLISH LINGUISTICS

Objectives of the Degree

Linguistics is the scientific study of language. It hopes to discover how languages are learned, processed, and used, how they are structured, why and how they change, and what status they have in social life. Briefly, linguists study human language with an eye to relating its structure to cognitive functions on the one hand and to social interaction on the other. The results are important to social and cognitive psychology, native and foreign language teaching at all levels, artificial intelligence and computer science, communications, sociology and anthropology, and historical accounts of human civilization, to name perhaps only the most obvious fields. Linguists find work in colleges and universities, in language

education and educational planning, in the communications industries (including publishing), in translation services, and in cross-cultural agencies of both business and government.

Linguistics Concentrations

Majors who enter with a limited background must complete those parts of the 401-420-425 sequence which were not a part of their undergraduate work. Graduate credit may be given for these courses. The usual prerequisite for any 500 level linguistics course (except 501, 502 and occasional special offerings) is 401; in addition, 525 (Advanced Syntax) and 534 (Advanced Phonology) require 425 and 420 respectively as specific prerequisites.

Majors and Electives (30 credit hours)

(Prerequisite 400-level courses— see above)

Eighteen hours of required courses chosen from the following:

LIN 501	Current Trends in Linguistics
LIN 502	History of Linguistics
LIN 510	Historical Linguistics
LIN 525	Advanced Syntax
LIN 531	Semantics
LIN 532	Sociolinguistics
LIN 533	Psycholinguistics
LIN 534	Advanced Phonology
LIN 535	Discourse Analysis
LIN 536	Linguistic Typology and Universals*
LIN 592	Special Topics (with adviser's approval)

**Courses being developed; currently offered as 592*

In addition, each candidate will complete a thesis (LIN 692) or sit for a comprehensive examination. The exam will include questions from general linguistics and specialized area(s) chosen by the candidate.

The remaining hours (nine for those who have written a thesis and twelve for those who have taken the exam) are selected by the candidates and their advisers.

They may include graduate courses from inside or outside the department. Suggested areas include anthropology, composition and rhetoric, linguistics (including courses not selected to fulfill the above requirements), literature (particularly the early periods), mathematics and computer science, psychology, reading, sociology, speech and hearing science, and TESOL.

TESOL PROGRAM

Students interested in practical applications of English linguistics are also advised to consult the Master of Arts program in Teaching English to Speakers of Other Languages (TESOL) offered by the Department of Foreign Languages and Bilingual Studies.

COURSES FOR THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN ENGLISH LINGUISTICS

LIN 501 Current Trends in Linguistics. Three sem hours

A study of current trends in linguistic research as they bear on any number of practical and educational problems: reading, writing, language and public policy, language and professions, etc.

Prereq: LIN 401 Introduction to Linguistic Science.

LIN 502 History of Linguistics. Three sem hours
Grammatical analysis from Plato to Chomsky; the influence of various linguistic theories and analytical methods on the development of contemporary language models and the teaching of grammar.

Prereq: LIN 401 Introduction to Linguistic Science.

ENG 506 Introduction to Old English. Three sem hours

The reading of representative selections of prose and poetry in the original Old English, and an introduction to Old English grammar.

Prereq: LIN 421 The History of the English Language.

ENG 509 Old and Middle English Dialects. Three sem hours

A study of the dialectal difference of Old and Middle English exemplified in literary texts of the medieval period, with an investigation of their contributions to standard modern English.

Prereq: LIN 421 The History of the English Language.

LIN 510 Historical and Comparative Linguistics. Three sem hours (Formerly Comparative Linguistic Analysis)

Introduction to comparative historical linguistics with special reference to the development of English from Germanic and Indo-European backgrounds.

Prereq: LIN 401 Introduction to Linguistic Science. Recommended: LIN 421 The History of the English Language.

LIT 512 Middle English Literature. Three sem hours
A study of the genres of Middle English literature (chronicle, dialogue, exemplum, fable, romance, sermon, etc.).

Prereq: Fifteen hours of credit in literature.

LIT 520 Old English Poetry. Three sem hours

A study of Old English prosodic conventions with close reading of representative poems from various types and schools of Old English poetry.

Prereq: Three courses in literature.

LIN 525 Advanced English Syntax. Three sem hours
An advanced course in syntactic analysis exploring recent research in transformation theory, semantic feature analysis, case grammar, and symbolic logic.

Prereq: LIN 401 Introduction to Linguistic Science; recommended LIN 402 Modern English Grammar.

LIT 530 Studies in Chaucer. Three sem hours
Intensive reading of Chaucer's major works and supplementary reading in Chaucerean criticism.

Prereq: Fifteen hours of credit in literature.

LIN 531 Semantics: The Study of Meaning. Three sem hours

A brief study of the historical background of modern semantic analysis of English utterances. Traditional and generative approaches to semantic concepts will be examined.

Prereq: LIN 401 Introduction to Linguistic Science.

LIN 532 Sociolinguistics. Three sem hours

An analysis of the diversity in language caused by social factors and the correlative influence of these linguistic differences upon society and social status.

Prereq: LIN 401 Introduction to Linguistic Science.

LIN 533 General Psycholinguistics. Three sem hours

An introduction to psycholinguistics, the mental representation of a grammar, perception of language units, aphasia and other language abnormalities, first and second language acquisition, bilingualism, language and thought. *Not open to students in speech-language pathology program.*

Prereq: LIN 401 Introduction to Linguistic Science.

LIN 534 Advanced Phonology. Three sem hours

Advanced theories in current phonology are presented and argued for, and contrasted with previous theories. Students do weekly analyses and submit an original final paper suitable for presentation at a conference.

Prereq: LIN 401 Introduction to Linguistic Science; recommended LIN 420 Introduction to Phonology.

LIN 535 Discourse Analysis. Three sem hours

An investigation of the grammar of texts; how units beyond the sentence are organized and how they may be analyzed.

Prereq: LIN 401 Introduction to Linguistic Science.

ENG 592 Special Topics. Three sem hours

An experimental course for subject matter not yet provided in other department offerings. The content will change from semester to semester. Students may elect this course more than once as long as different topics are covered. *Not more than six hours of special topics may be used on a degree program.*

ENG 692 Thesis. **Three sem hours**
Original research or critical study designed and completed by the student under the guidance of the thesis director and committee.
Prereq: ENG 621 Research in Theory and Practice of Writing and departmental permission.

ENG 697, 698, 699 Independent Study in English. **One, two and three sem hours**
An intensive study of a problem or research area not covered in regular courses; under the direction of a University faculty member.
Prereq: Departmental permission.

NOTE: Advanced 400-level undergraduate courses are also available to graduate students. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in an advanced 400-level undergraduate course for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN CREATIVE WRITING

Objectives of the Degree:

The M.A. in English with a concentration in creative writing provides an advanced, individualized program of work in creative writing and contemporary studies. Workshops, cognate requirements, and a double culminating experience — half creative, half critical and interdisciplinary in focus, emphasize the contemporary, creative context of a writer's work. The degree concentration provides a valuable framework for writers, by connecting their particular work with the arts and thought of their time, and by encouraging diverse, innovative writing.

The degree prepares writers for their continuing creative work. It is also useful for writers who may teach creative writing, English, humanities, or contemporary studies.

For admission to the concentration, candidates submit a portfolio of their creative writing. They will meet the general requirements for admission to the Graduate Program in English Language and Literature. The portfolio may serve in lieu of part of the 24 hours of undergraduate course work in English.

Requirements and Electives: (21 credit hours)
9 hours of literature (modern and contemporary) Select from:

- LIT 401 British and American Poetry: 1914 to Present
- LIT 410 Modern American Literature
- LIT 460 Recent Trends in British and American Literature
- LIT 526 Harlem Renaissance and Beyond
- LIT 566 Studies in 20th Century British Fiction
- LIT 567 Studies in 20th Century Irish Literature
- LIT 576 Studies in 20th Century American Fiction
- LIT 577 Studies in 20th Century American Poetry
- LIT 580 Studies in Contemporary Literary Trends
others with permission of adviser

6 hours of writing workshops
ENG 522 Writing Workshop (may be repeated for credit)

(note: sections in poetry, fiction, and translation will be offered)

6 hours: 3 hours of directed creative writing project and 3 hours of directed critical thesis:
ENG 692 Thesis
ENG 693 Master's Writing Project

Cognates: (9 credit hours)

Select from any area of contemporary studies — art, foreign language literature, music, history, philosophy, etc., as approved by adviser. Students must meet the prerequisites of the respective departments.

GENERAL COURSES

ENG 543 Language of, by, for and About Women. **Three sem hours**

A study of women's language: how and why it differs from men's, how it affects writing style, what social effect it has and how it is changing.

FOREIGN LANGUAGES AND BILINGUAL STUDIES

Department Head-Position Vacant
219 Alexander Music Building
487-0130

Phyllis Noda
Coordinator of Advising
Spanish (Bilingual-Bicultural Education)
219 Alexander Music Building
487-0370

Contact the Department Office for
Coordinator of Advising
Foreign Languages
Language and International Trade
TESOL (Teaching English to Speakers of Other
Languages)
219 Alexander Music Building
487-0130

The Department of Foreign Languages and Bilingual Studies offers a master of arts in Spanish (Bilingual-Bicultural Education), a master of arts in language and international trade, a master of arts in teaching English to speakers of other languages (TESOL) and a master of arts in foreign languages with concentrations in French, German and Spanish.* A major emphasis in French, German or Spanish can also be developed through the master of arts in secondary school teaching or the master of arts in individualized studies. (*Contact department as concentrations are pending final approval.)

SPANISH (BILINGUAL-BICULTURAL EDUCATION)

OBJECTIVES

Objectives of the program are to produce graduates with high-level competencies in the following areas:

Language

This area of competence includes demonstrated proficiency in both Spanish and English, demonstrated ability to teach both languages as subject matters and demonstrated ability to use both languages as media instruction in other subject matter areas.

Culture

This area of competence requires students to demonstrate a number of specific abilities related to knowledge of Latino and other U.S. cultures and the diversity within each; awareness of and sensitivity to differences in socioeconomic, cultural and linguistic background; and skill in guiding students to acceptance and positive evaluation of cultural pluralism.

Methodology

This area of competence includes, in addition to the skills mentioned above under Language and Culture, demonstrated ability to accommodate variations in cultural, linguistic and socio-economic background by individualizing instruction and utilizing appropriate evaluation instruments and procedures; demonstrated skill in classroom management, including team teaching and working with paraprofessionals; and demonstrated skill in organizing planning and teaching lessons which integrate the bilingual-bicultural curriculum into the standard local district curriculum.

ADMISSION REQUIREMENTS

1. Meet Graduate School degree admission requirements.
2. Sufficient skills in both Spanish and English to successfully participate in graduate courses and field work conducted in either language.
3. Experience with living and/or working in a multicultural setting.
4. Intent to pursue and promise of successful completion of a program leading to a graduate degree.
5. Conditional admission will not be granted.

PROGRAM REQUIREMENTS

The candidate for an M.A. in Spanish (Bilingual-Bicultural Education) must fulfill the following requirements before the degree will be awarded:

1. Demonstrate language proficiency in both Spanish and English; proficiency will be determined by examination.
2. Possess a valid teaching certificate. (Not required for admission, however.)
3. Bilingual-Bicultural Core Curriculum (18 semester hours).

Track I*

BIL 622 Teaching Hispanic Culture and Language (3)
TSL 410 G TESOL Methods (3)

FLA 421G History and Theory of Bilingual
Education (3)

FLA 695 Seminar in Bilingual-Bicultural
Education (3)

SPN 471G Culture and Literature of Hispanic
Groups in U.S. (3)

SPN 682 U.S. Dialects of Spanish (3)

**Track I is designated for those students who have no prior course work in bilingual education.*

Track II* (Placement by bilingual graduate adviser)

- BIL 622 Teaching Hispanic Culture and Language (3)
 BIL 623 Bilingual Education Public Policy in the U.S. (3)
 BIL 624 Bilingual Educational Theory (3)
 BIL 625 Bilingual Education Teaching Techniques (3)
 FLA 695 Seminar in Bilingual-Bicultural Education (3)
 SPN 682 U.S. Dialects of Spanish (3)

***Track II is designed for those students who wish to pursue an M.A. in bilingual education but hold a bilingual endorsement or bachelor's degree in that field through undergraduate study.*

4. Six semester hours of electives from the following:

- TSL 679 Special Topics (1)
 TSL 501 Theoretical Foundations of Second Language Pedagogy (3)
 TSL 520 Foreign Language Testing and Evaluation (2)
 CUR 512 Enriching the Elementary Classroom Program (2)
 CUR 600 Early Childhood Education (2)
 CUR 616 Issues in Elementary School Curriculum (3)
 CUR 630 Issues in Secondary School Curriculum (2)
 CUR 632 Individualizing Instruction in the Secondary School (2)
 CUR 657 The Open Classroom (4)
 EDP 631 Measurement and Evaluation (2)
 RDG 518 Developmental Reading - Elementary (2)
 RDG 519 Programs in Language Arts (2)
 RDG 530 Developmental Reading - Secondary (2)
 RDG 554 Reading Problems for Learners with Special Needs (2)
 SFD 580 Sociology of Education (2)
 SFD 662 Cultural Determinates of Learning (2)
 SPN 519 Spanish Phonology (2)
 SPN 620 Spanish Grammar and Syntax (2)
 SPN 621 Graduate Spanish Conversation (2)

5. Six semester hours of cognate work selected in consultation with graduate adviser.

6. Collateral Field Experience. An additional requirement for the core curriculum is three day's field experience for each course, except seminar. This represents a total of 15 days for the core-curriculum block.

Bilingual Endorsement Program for Certified Teachers (18 semester hours) Not a degree program.

- Demonstrate language proficiency in both Spanish and English; proficiency will be determined by examination.
- Bilingual-Bicultural Core Curriculum Track I (18 semester hours)
 - BIL 622 Teaching Hispanic Culture and Language (3)
 - TSL 410G TESOL Methods (3)
 - FLA 421G History and Theory of Bilingual Education (3)

- FLA 695 Seminar in Bilingual-Bicultural Education (3)
- SPN 471G Culture and Literature of Hispanic Groups in U.S. (3)
- SPN 682 U.S. Dialects of Spanish (3)

3. Collateral Field Experience. An additional requirement for the core curriculum is three day's field experience for each course, except seminar. This represents a total of 15 days for the core-curriculum block.

LANGUAGE AND INTERNATIONAL TRADE**OBJECTIVES**

Objectives of the program are to promote cultural awareness and sensitivity with reference to our own society as well as to societies of other work regions and to provide the skills and knowledge necessary for competent performance in an international business environment.

ADMISSION REQUIREMENTS

Applicants to the language and international trade master's degree program must:

- Declare the foreign language to be used for the language area requirement on the application for admission to The Graduate School (i.e., language and international trade - French). Native speakers of a language may not elect that language without permission of the language section concerned.*
- Possess a minimum overall undergraduate grade point average of 2.75.
- Submit a statement of their reasons for pursuing this degree;
- Have two of their former university professors complete the departmental recommendation forms and forward directly to the department.
- Meet the background requirements stated below:
(In order to gain regular degree admission to the Master of Arts program in language and international trade, a student must have completed the following at the undergraduate level.)

a. *Foreign Language*

Non-native speakers of French, German, or Spanish must possess at least a minor in that language with a grade point average of 3.0, or the equivalent proficiency.

Non-native speakers of English must possess a minimum score of 80 on the MELAB or 520 on the TOEFL and a score of 5 on the TWE.

- b. *Economics*
 A two-course sequence in macroeconomic theory and policy.
 A two-course sequence in microeconomic theory and policy.
 (If students do not meet the above requirements, he/she may be granted conditional admission and be required to complete either ECO 201 Principles of Economics I and ECO 301 Intermediate Macroeconomic Analysis or ECO 501 Macroeconomic Theory and Policy for Macroeconomics; and either ECO 202 Principles of Economics II and ECO 302 Intermediate Microeconomic Analysis or ECO 502 Microeconomic Theory and Policy for Microeconomics. Students must achieve an overall grade point average of 3.0 ("B") or better in deficiency courses.)
- c. *Business*
 A course in the principles of accounting.
 A course in basic computers in business.
 (If a student does not meet the above requirements, he/she may be granted conditional admission and required to complete either ACC 240 Principles of Accounting and ACC 241 Principles of Accounting or ACC 501 Accounting Principles for accounting; and MTH 118 Mathematical Analysis for Social Sciences I plus CSC 136 Computers for the Non-Specialist; or ORI 215 Introduction to Business Information Systems or ORI 502 Business Information Systems for Basic Computers. Students must achieve an overall grade point average of 3.0 ("B") or better in deficiency courses.)

* Students applying to the ESL section of Master of Arts in language and international trade should be sure their completed applications reach The Graduate School five months prior to the semester in which they wish to begin studying.

PROGRAM REQUIREMENTS

- a. **Foreign Language** (a minimum of 10 credit hours)
 Students using French, German, or Spanish to fulfill the foreign language requirements must elect 10-12 hours of graduate credit in that language area, six hours of which must be 600-level business language courses taken at Eastern Michigan University.
- Students using English to fulfill their foreign language requirement must complete 10 hours of business language courses, ESL 642 English as a Second Language for Special Purposes: Business and ESL 648 English as a Second Language for Special Purposes: Business.

- b. **Economics** (a minimum of six credit hours)
 All language and international trade students are required to complete the following:
 ECO 508 International Trade*
 ECO 509 International Monetary Economics

Other credit hours can be selected from among the 500-level **economics** courses with the aid and approval of the language and international trade graduate adviser.

*Prerequisites for this course are either ECO 201 Principles of Economics I and ECO 301 Intermediate Macroeconomic Analysis or ECO 202 Principles of Economics II and ECO 302 Intermediate Microeconomic Analysis or ECO 501 Macroeconomic Theory and Policy and ECO 502 Microeconomic Theory and Policy.

- c. **Business** (a minimum of 12 credit hours)

All language and international trade students are required to complete the following:

- ORI 501 Introductory Probability and Statistics for Business* (3)
 MKT 510 Marketing (3)

Other credit hours are to be selected from among the 500-level **business** courses with the aid and approval of the language and international trade adviser. At least one of these shall be a business course with an international focus.

*Prerequisites for this course are MTH 118 Mathematical Analysis for Social Sciences I and MTH 119 Mathematical Analysis for Social Sciences II.

Cooperative Education: (3-6 semester hours)

To complement their academic training and enhance their professional preparation and chances for future employment, all students are expected to complete a 15-week cooperative education assignment in the public or private sector, provided an appropriate position can be found. U.S. students may undertake this assignment either in the U.S. or in France, Germany or Spain, while ESL students may elect only the U.S. co-op. In all cases, they must satisfy the requirements of the co-op for which they are eligible.

- a. **U.S. Co-Op Placements**

To be eligible for this placement, a student must have achieved at least a 3.0 GPA and have completed at least 12 hours of graduate business and economic courses as well as half of the foreign language requirements. If the student meets these requirements he/she should make an appointment with the language and international trade co-op

adviser at least six months prior to the semester in which the student would like to begin the co-op assignment; 219 Alexander, (313) 487-0310.

b. Overseas Co-Op Placement

To be eligible for an international co-operative education exchange placement, a student must have achieved at least a 3.25 GPA and have completed 18 hours of graduate business and economics courses as well as the foreign language requirement for the Master of Arts in language and international trade. The student must also pass an oral interview conducted by the language section with whom he/she is studying at least seven months before the date on which the student wishes to begin the international co-op assignment. Please see the language and international trade co-op adviser for further information; 219 Alexander, (313) 487-0310.

TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL)

OBJECTIVES

Objectives of the program are to produce teachers who possess a knowledge of English perceived as a foreign language, a knowledge of foreign language teaching and learning strategies, practical experience in applying theoretical knowledge and an awareness of the realities of the multicultural classroom.

ADMISSION REQUIREMENTS

1. Meet Graduate School degree admission requirements.
2. At least one year's college study of a foreign language, or the equivalent as determined by the Department of Foreign Languages and Bilingual Studies.
3. At least two letters of recommendation that give evidence of the applicant's promise of success in working with speakers of other languages and working in multicultural settings.
4. A brief statement of your reasons for pursuing this degree.
5. Non-native speakers of English must submit an official TOEFL score of 520 with a TWE score of 5 or a MELAB score of 80 or above.

Conditional admission may be granted to students who do not meet the above admission requirements. These students will be required to take deficiency courses to meet these requirements; this work will be in addition to regular program requirements.

The deadline for applications is five months prior to the semester in which the applicant wishes to begin. Because of the sequencing of core courses, starting the program in fall semester is recommended.

PROGRAM REQUIREMENTS

Core Curriculum (20 semester hours)

- TSL 500 Observation and Analysis of ESL Programs (1)
 TSL 501 Theoretical Foundations of Second-Language Pedagogy (3)
 TSL 502 A Pedagogical Grammar and Phonology of ESL (3)
 TSL 520 Foreign Language Testing and Evaluation (2)
 TSL 530 TESOL Methods: Reading, Writing and Grammar (2)
 TSL 532 TESOL Methods: Listening, Speaking and Pronunciations (2)
 TSL 591 Special Topics (2)
 TSL 688 TESOL Practicum (3)
 TSL 694 TESOL Seminar (2)

Restricted Electives (six semester hours)

A minimum of 6 hours in English language courses are required. The following are recommended:

- LIN 401 G Introduction to Linguistics (3)
 LIN 402 G Modern English Grammar (3)
 LIN 420 G Introduction to Phonology (3)
 LIN 421 G History of English (3)
 ENG 424 G Technical Writing (3)
 LIN 425 G Introduction to Syntax (3)
 LIN 534 Advanced Phonology (3)
 LIN 525 Advanced Syntax (3)
 LIN 531 Semantics (3)
 LIN 532 Sociolinguistics (3)
 LIN 533 Psycholinguistics (3)
 LIN 534 Advanced Phonology (3)
 ENG 596 Teaching Composition on the College Level (3)
 SLI 508 Variant English in the Educational Process (3)

Cognates (six semester hours)

A maximum of six semester hours supportive or complementary from other departments should be selected with the approval of the graduate advisor.

Before enrolling in approved 400-level courses for graduate credit, students must (a) obtain recommendation of their adviser; and (b) written permission from the Graduate School, Starkweather Hall. Not more than 9 hours of approved 400-level courses can be used on a graduate program.

GRADUATION REQUIREMENTS

Non-native speakers of English must present an official score of 85 on the Michigan English Language Assessment Battery (MELAB) or 560 on the Test of English as a Foreign Language (TOEFL) as a requirement for graduation from the program.

FOREIGN LANGUAGES (FRENCH, GERMAN, SPANISH)

The goal of the Master of Arts program is to assist candidates in attaining the equivalent of a superior level of proficiency in the foreign language chosen as defined by the ETS/ACTFL scale, as well as a broad knowledge of the geography and cultures of the regions where the target language is spoken, and to improve overall teaching effectiveness.

GENERAL OBJECTIVES

The general objectives include:

1. the development of superior level skills in listening, speaking, reading, and writing in the chosen foreign language;
2. the incorporation of current pedagogies into the candidates' personal teaching styles, and
3. the analysis of current cultural patterns, literary material, and/or technical information.

ADMISSION REQUIREMENTS

The following requirements shall govern admission to the program:

1. candidates shall hold undergraduate majors or minors in the language of their specialization, with an overall undergraduate grade point average of 2.75 and a grade point average of 3.0 in courses taken in the target language;
2. candidates shall successfully complete an oral proficiency interview in the language of their specialization with a rating of "Advanced."
3. conditional admission shall be granted to candidates evidencing deficiencies in target language proficiency. Such candidates must successfully complete deficiency courses including, but not limited to, FRN 443 Advanced French Grammar and Composition and FRN 444 Advanced French Conversation; GER 443 German Syntax and Advanced Composition and GER 444 Advanced German Conversation; or SPN 443 Advanced Spanish Grammar and Composition and SPN 444 Advanced Spanish Conversation and Composition. Graduate credit will not be granted for these courses.
4. applications will be reviewed by the faculty of the language area of specialization.

PROGRAM REQUIREMENTS

A cultural immersion experience is required of candidates in all concentrations. This experience should consist of at least six weeks in a country in which the target language is the principal language of communication. Students who feel they may already have fulfilled this requirements through past residence or study may petition to have the requirement waived or

reduced; if approved, the candidate may substitute any restricted electives totaling up to six hours. For those not having experienced such a period of cultural immersion, it may be fulfilled by, but not limited to, the intensive immersion experience offered in each area of concentration. Similar programs of study with corroborating documentation may be accepted upon approval of the faculty of the area of concentration. Students should select a program in consultation with a faculty advisor prior to enrollment in any study abroad program.

In addition, students will be required to complete a culminating experience in consultation with a faculty adviser, such as a master's examination, a piece of data-based research, a thesis, or an external oral proficiency exam such as the Certificat des Professions techniques et scientifiques de la Chambre de Commerce et de l'Industrie de Paris, Certificat or Diplôme de français scientifique et technique de la Chambre de Commerce et de l'Industrie de or the Mittelstufenprüfung and Diplom Wirtschafts-Deutsch.

The program of study in each of the three concentration areas is described below. Specific courses are listed by area of concentration.

Concentration Area: French

Core requirements: 18 credit hours (A maximum of nine hours of 400-level courses may be used on degree.)

- FRN 523 Contemporary French Scene (3)
- FRN 610 Intensive French Abroad (6)
- FRN 620 French Grammar and Syntax (3)
- FRN 621 Advanced Conversation in French (3)

Any additional three credit hours in 500-1600-level French or any 400-level course EXCEPT the following:

- FRN 443 Advanced French Grammar and Composition (3)
- FRN 444 Advanced French Conversation (3)
- FRN 446 Business French I (3)
- FRN 447 Business French II (3)
- FRN 456 Scientific and Technical French I (3)
- FRN 457 Scientific and Technical French II (3)
- FRN 488 Internship (2)
- FRN 499 Internship (3)
- FRN 490 Intensive French Abroad (6)
- FRN 497, 498, 499 Independent Study (1,2,3)

Students may not repeat any course taken at the 400 level but may take any 600 level course if not already taken.

Restricted Electives: six credit hours

- TSL 501 Foundations of Second-Language Pedagogy (3)
- TSL 520 Foreign Language Testing and Evaluation (2)
- FLA 611 Theory and Methods of Modern Language Teaching (3)
- FLA 612 The Proficiency-Based Curriculum (3)
- FLA 613 Using Technology in the Foreign Language Classroom (3)

Cognates: six credit hours

A selection from courses in a related content area to be arranged in consultation with a faculty adviser.

Concentration Area: German

Core requirements: 18 credit hours (A maximum of nine hours of 400-level courses may be used on degree.)

GER 610 Intensive German (6)

GER 620 Advanced German Syntax and Conversation (3)

GER 621 Advanced Conversation in German (3)

An additional six credit hours in German at the 500-1600-level or any 400-level course EXCEPT:

GER 443 German Syntax and Advanced Composition (3)

GER 444 Advanced German Conversation (3)

GER 446 Business German I (3)

GER 447 Business German II (3)

GER 456 Technical German I (3)

GER 457 Technical German II (3)

GER 488 Internship (2)

GER 489 Internship (3)

GER 497,

498, 499 Independent Study (1,2,3)

Restricted Electives: six credit hours

TSL 501 Foundations of Second-Language Pedagogy (3)

TSL 520 Foreign Language Testing and Evaluation (2)

FLA 611 Theory and Methods of Modern Language Teaching (3)

FLA 612 The Proficiency-Based Curriculum (3)

FLA 613 Using Technology in the Foreign Language Classroom (3)

Cognates: six credit hours

A selection from courses in a related content area to be arranged in consultation with a faculty adviser.

Concentration Area - Spanish

Core Requirements: 18 credit hours (A maximum of nine hours of 400-level courses may be used on degree.)

SPN 610 Intensive Spanish (6-12)

SPN 620 Spanish Grammar and Syntax (2)

SPN 621 Graduate Spanish Conversation (2)

An additional two-to-eight credit hours in 500-1600-level Spanish or any 400-level literature course from the following group:

SPN 445G Spanish-American Prose (3)

SPN 448G Modern Drama (3)

SPN 449G Romanticism (3)

SPN 454G Modernism in Spanish America (3)

SPN 455G The Generation of 1898 (3)

SPN 463G Don Quixote (3)

SPN 464G Drama of the Golden Age (3)

SPN 465G Modern Novel (3)

SPN 471G Culture and Literature of the Hispanic Groups in the U.S. (3)

Restricted Electives: six credit hours

TSL 501 Foundations of Second-Language Pedagogy (3)

TSL 520 Foreign Language Testing and Evaluation (2)

FLA 611 Theory and Methods of Modern Language Teaching (3)

FLA 612 The Proficiency-Based Curriculum (3)

FLA 613 Using Technology in the Foreign Language Classroom (3)

Cognates: six credit hours

A selection from courses in a related content area to be arranged in consultation with a faculty adviser.

FOREIGN LANGUAGE AND BILINGUAL STUDIES COURSES

IN ENGLISH

These were formerly CEN courses.

TSL 500 Observation and Analysis of ESL Programs. One sem hour

Observations of ESL classes in varied contexts and practice in using different types of observation instruments. Seminar topics focus on ESL classrooms noting differences for ESL classrooms.

TSL 501 Theoretical Foundations of Second-Language Pedagogy. Three sem hours

Overview of the principal theories of language description, language learning, and language use, with emphasis on those factors which affect second-language acquisition and learning.

Prereq: Departmental permission.

TSL 502 A Pedagogical Grammar and Phonology of ESL. Three sem hours

Examines the structure and sound systems of American English as it applies to the teaching and learning of English as a foreign language. Emphasizes practical aspects of usage.

Prereq: Departmental permission.

TSL 511 Practical Application of Linguistics to ESL. Two sem hours

The linguistic principles and theories of adult ESL, with discussion sessions on their practical application. This course provides the ESL teacher with a basic introduction to linguistics as a precursor to the solution of practical problems.

TSL 520 Foreign Language Testing and Evaluation. Two sem hours

Examines the role of testing; surveys types of tests; discusses the criteria of a good test; analyzes tasks that variously require listening, speaking, reading, writing and communicative competence; and provides practice in evaluating and constructing test items.

Prereq: TSL 501 Theoretical Foundations of Second-Language Pedagogy and TSL 502 A Pedagogical Grammar and Phonology of ESL.

TSL 530 TESOL Methods: Reading, Writing and Grammar. Two sem hours

Examines content and methodology in teaching TESOL reading, writing and grammar to diverse groups of students. Students are expected to investigate different techniques, analyze them and research one area.

Prereq: TSL 500 Observation and Analysis of ESL Programs, TSL 501 Theoretical Foundations of Second-Language Pedagogy and TSL 502 Pedagogical Grammar and Phonology of ESL.

TSL 532 TESOL Methods: Listening, Speaking and Pronunciation. Two sem hours

Examines content and methodology in teaching TESOL listening, speaking and pronunciation to diverse groups of students. Students are expected to investigate different techniques, analyze them, and research one area.

Prereq: TSL 500 Observation and Analysis of ESL Programs, TSL 501 Theoretical Foundations of Second-Language Pedagogy and TSL 502 Pedagogical Grammar and Phonology of ESL.

TSL 590, 591, 592 Special Topics. One, two and three sem hours

An intensive study of a specific topic to be determined by the instructor, field of specialization and student interest. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

TSL 688 TESOL Practicum. Three sem hours

Supervised practical experience in TESOL appropriate to the student's intended teaching setting. With the guidance of a trained ESL teacher, the practicum student will select appropriate materials and techniques to develop the necessary skills in the learners and will then apply them in the classroom situations.

Prereq: TSL 500 Observation and Analysis of ESL Programs, TSL 501 Theoretical Foundations of Second-Language Pedagogy, TSL 502 A Pedagogical Grammar and Phonology of ESL, TSL 530 TESOL Methods: Reading, Writing and Grammar, TSL 532 TESOL Methods: Listening, Speaking and Pronunciation and have a 3.0 grade point average or better in all core course work.

TSL 694 TESOL Seminar. Two sem hours

Different topics are selected each semester for intensive study by advanced students. The course consists of review and discussion of contemporary issues in TESOL, based on research projects and review of the pertinent literature carried out by the student. Emphasis in seminar meetings on exchange of ideas and information developed in the research.

Prereq: Twelve hours of core requirements.

ESL 512 Academic Writing for Foreign Graduate Students. Two sem hours

This course addresses the particular need of foreign graduate students to be able to express their understanding of material in their academic disciplines.

Prereq: Minimum score: Michigan Test, 80; TOEFL, 500 with TWE of 4 or above; recommendation of academic adviser.

ESL 590, 591, 592 Special Topics. One, two and three sem hours

An intensive study of a specific topic to be determined by the instructor, field of specialization and student interest. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

ESL 642, 648 English as a Second Language for Special Purposes: Business. Five sem hours each (Formerly ESL 501, 502)

A course for non-native speakers of English to improve their command of the English language for use in business. Emphasizes both oral and written communication skills, as well as vocabulary, grammar, and pronunciation, in a business context.

Prereq: A score of 80 on the Michigan English Language Assessment Battery or 520 on the Test of English as a Foreign Language and completion of ESL 412 Academic English as a Second Language: Writing and/or ESL 416 Academic English as a Second Language: Listening and Speaking.

FLA 590, 591, 592 Special Topics. One, two and three sem hours (Formerly FLA 539, 540, 541)

An intensive study of a specific topic to be determined by the instructor's field of specialization and student interest. Special Topics courses may be repeated for credit. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

FLA 611 Theory and Methods of Modern Language Teaching. Three sem hours (Formerly Methods of Teaching Modern Language)

The history, theory, and techniques of modern language teaching.

Prereq: Major or minor in foreign language or departmental permission.

FLA 612 The Proficiency-Based Curriculum. Three sem hours

This course focuses on the content of instruction, or curriculum, as re-defined by the ACTFL/ETS Proficiency Guidelines and as reorganized in terms of communication tasks and language functions rather than grammatical principles.

Prereq: FLA 611 Theory and Methods of Modern Language Teaching or departmental permission.

FLA 613 Using Technology in the Foreign Language Classroom. Three sem hours

This course focuses on the review, development and integration of audio, computer-assisted, and video-interactive video technologies in the foreign language classroom.

Prereq: FLA 611 Theory and Methods of Modern Language Teaching or departmental permission.

FLA 679, 680, 681 Special Topics. One, two and three sem hours

An intensive study of specific areas of foreign language or literature, to be determined by the instructor's field of specialization and student interest. *This course may be repeated for credit with departmental permission. Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

FLA 688 Internship in Language and International Trade. Three sem hours (Formerly FLA 590)

Provides an opportunity for the graduate student to extend theoretical classroom learning through working experience in an appropriate setting. The Foreign Language and Bilingual Studies Department in cooperation with the College of Business will arrange and supervise suitable assignments in firms conducting international business. A minimum of 10 hours per week in the field will be supplemented by regular meetings with the faculty supervisors. *Credit/no credit.*

Prereq: Departmental permission.

FLA 695 Seminar in Bilingual-Bicultural Education. Three sem hours (Formerly FLA 596)

Each semester different topics are selected for intensive study by advanced students. The course consists of a review and discussion of contemporary issues in bilingual-bicultural education, following which students select areas for research. Emphasis in seminar meeting on exchange of ideas and information developed through the research. *Taught in Spanish/English.*

Prereq: Departmental permission.

FLA 697, 698, 699 Independent Study. One, two and three sem hours (Formerly 597, 598, 599)

Intensive study of a problem under the direction of a member of the graduate staff.

Prereq: Departmental permission.

IN FRENCH

FRN 523 Contemporary French Scene. Three sem hours

An intensive disciplinary approach to French language, culture, and literature. Material to be read in the original and to serve as a basis for class discussion in French. Assigned reading and oral reports.

Prereq: FRN 444 Advanced French Conversation or equivalent.

FRN 592 Special Topics in French. Three sem hours (Formerly FRN 594)

An intensive study of a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. *This course may be repeated for credit with departmental permission. Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

FRN 610 Intensive French Abroad. Six sem hours

An intensive summer course offered in a French-speaking environment. Instruction emphasizes improvement of listening comprehension and speaking skill. Various levels of instruction suited to student needs. *May be repeated for credit.*

FRN 616 French (Four Skills) for Non-Majors. Three sem hours (Formerly FRN 516)

Introduction to and practice in four skills (listening, speaking, reading, writing) of French.

FRN 617 French (Four Skills) for Non-Majors. Three sem hours
(Formerly FRN 517)

Introduction of and practice in four skills (listening, speaking, reading, writing) of French.

Prereq: FRN 616 French (Four Skills) for Non-Majors or equivalent.

FRN 620 French Grammar and Syntax. Three sem hours
(Formerly FRN 520)

An advanced course in grammar and syntax. Intended to give a solid basis for oral and written expression and for teaching of French.

Prereq: FRN 443 Advanced French Grammar and Composition or equivalent.

FRN 621 Advanced Conversation in French. Three sem hours
(Formerly FRN 521)

A continuation of advanced conversation with emphasis on attaining fluency at all levels pertinent to professional and cultural needs. Discussions and oral reports on periodical literature. *This course may be repeated for credit.*

Prereq: FRN 444 Advanced French Conversation or departmental permission.

FRN 646 French Economy and Business Practices I. Three sem hours

Advanced course in business communications, translation techniques and French business practices. Study of French economy, energy, industry, commerce, agriculture and services. Demographic and political trends. *In French.*

Prereq: FRN 620 French Grammar and Syntax and FRN 621 Advanced Conversation in French.

FRN 647 French Economy and Business Practices II. Three sem hours

Continuation of FRN 646 French Economy and Business Practices I. Study of French economy as it relates to the European economic community, the U.S., the East, the developing countries, and the francophone countries. *In French.* Upon completion of this course, students are eligible to take language proficiency examinations, leading to the C.C.I.F. Diplomas.

Prereq: FRN 646 French Economy and Business Practices I or departmental permission.

FRN 656 French for Science and Technology I. Three sem hours

A study of the language and technology of manufacturing processes, goods and services offered in three scientific and technical fields in French-based multinationals. Topics covered may include food industry, automobile mass transportation or energy. *In French.*

Prereq: Bachelor's degree or equivalent with a major/minor in French or departmental permission.

FRN 657 French for Science and Technology II. Three sem hours

Continuation of the study of the language and terminology of manufacturing processes, goods and/or services offered by French-based multinationals. Topics may include electronics, computers, glass or robotics. *In French.*

Prereq: Bachelor's degree or equivalent with a major/minor in French or departmental permission.

FRN 663 Medieval French Literature. Three sem hours
(Formerly FRN 563)

A study of the chief literary movements of the Old and Middle French periods with representative texts in modern French versions. *In French.*

Prereq: Two courses in French literature at the 400-level or permission of the department.

FRN 664 Sixteenth Century French Literature. Three sem hours
(Formerly FRN 564)

A study of the chief literary movements and representative authors of the French Renaissance. *In French.*

Prereq: Two courses in French literature at the 400-level or departmental permission.

FRN 679, 680, 681 Special Topics. One, two and three sem hours

An intensive study of a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. *This course may be repeated for credit with permission. Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

FRN 692 Research Paper. Three sem hours

An intensive research into a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. *This course may be repeated for credit with permission.*

Prereq: Departmental permission.

FRN 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly FRN 597, 598, 599)

Intensive study of a problem under the direction of a member of the graduate staff.

Prereq: Departmental permission.

IN GERMAN

GER 610 Intensive German in Europe. Six sem hours

An intensive summer course offered in Europe. Instruction emphasizes improvement of listening comprehension and speaking skill. Various levels of instruction suited to student needs. *May be repeated for credit.*

GER 620 Advanced German Syntax and Conversation. Three sem hours
An advanced course in grammar, syntax and composition. Intended to give a solid basis for oral and written expression.
Prereq: GER 443 German Syntax and Advanced Composition or equivalent or departmental permission.

GER 621 Advanced Conversation in German. Three sem hours
A continuation of advanced conversation with emphasis on attaining fluency at all levels pertinent to professional needs. *The course may be repeated for supplementary credit.*
Prereq: GER 444 Advanced German Conversation or equivalent or departmental permission.

GER 646, 647 German Business Practices. Three sem hours each
The course teaches the correct usage of German economic and financial vocabulary and trains the students in the reading, writing and translating of German business communications of varying types. German language periodicals and journals are used.
Prereq: GER 443 German Syntax and Advanced Composition and GER 444 Advanced German Conversation.

GER 656 German for Science and Technology I. Three sem hours
Study of specialized vocabulary and jargon used in selected fields of technology. The intent is to familiarize students with basic technical concepts and vocabulary that they may encounter in German industry.
Prereq: Undergraduate major/minor in German or departmental permission.

GER 657 German for Science and Technology II. Three sem hours
Study of specialized vocabulary and jargon used in selected fields of technology. The intent is to familiarize students with basic technical concepts and vocabulary that they may encounter in German industry.
Prereq: GER 656 German for Science and Technology I or departmental permission.

GER 679, 680, 681 Special Topics. One, two and three sem hours
An intensive study of a specific area of German language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. *Not more than six hours of special topics may be used on a degree program.*
Prereq: Department permission.

GER 697, 698, 699 Independent Study. One, two and three sem hours
Intensive study of a problem under the direction of a member of the graduate staff.
Prereq: Departmental permission.

IN SPANISH

BIL 622 Teaching Hispanic Culture and Language. Three sem hours
(Formerly FLA 612, FLA 522)
The techniques and materials for teaching the language and culture of Hispanic groups within the bilingual classroom. *Not open to students on academic probation.*
Prereq: A minimum of 24 hours of field experience in a bilingual classroom required.

BIL 623 Bilingual Education Public Policy in the U.S. Three sem hours
Study of the principal factors that influence bilingual education public policy formulation in the U.S., including federal and state legislation, federal court decisions, and the role of the mass media and bilingual communities.

BIL 624 Bilingual Educational Theory. Three sem hours
Study of the principal theories that influence the design and implementation of bilingual instruction programs, with special emphasis on language, culture, neurolinguistics, and pedagogy.

BIL 625 Bilingual Education Teaching Techniques. Three sem hours
This course will acquaint the student with and provide practice in the use of teaching techniques utilized in the teaching of content areas in bilingual classrooms.
Prereq: A minimum of 24 hours of field work required.

BIL 679, 680, 681 Special Topics in Bilingual Education. One, two and three sem hours
In-depth study of special areas in bilingual education of interest to practitioners and researchers. Subject matter will change from semester to semester. *May be repeated for credit. Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

SPN 519 Spanish Phonology. Two sem hours
A study of the articulatory basis of the sounds in Spanish. Drills on rhythm and intonation patterns, with practice and recordings in the laboratory.
Prereq: SPN 444 Advanced Spanish Conversation and Composition or equivalent.

SPN 522 Stylistics. Two sem hours
The manner in which literary Spanish makes one of the means of expression available in the language.
Prereq: SPN 443 Advanced Spanish Grammar and Composition.

SPN 524 The Spanish Language in the New World. Two sem hours
Acquainting the students with the Spanish language as it is used in several language areas of the American continent.
Prereq: SPN 620 Spanish Grammar and Syntax.

SPN 610 Intensive Summer Program in Spanish. Six sem hours
Intensive summer course offered in Mexico. Small-group (four to five students) language instruction, with many different instructional levels available. Students advance according to individual progress. Students live with Mexican families. *May be repeated for credit.*

SPN 620 Spanish Grammar and Syntax. Two sem hours (Formerly SPN 520)
The morphological and syntactical structure of Spanish.
Prereq: SPN 443 Advanced Spanish Grammar and Composition or equivalent.

SPN 621 Graduate Spanish Conversation. Two sem hours (Formerly SPN 521)
A continuation of advanced conversation with emphasis on matters of diction and style. *This course may be repeated for supplementary credit.*
Prereq: SPN 444 Advanced Spanish Conversation and Composition or equivalent.

SPN 646, 647 Spanish for Business Practices. Three sem hours each
These courses teach the correct usage of Hispanic business and financial vocabulary, train the students in the reading, writing and translation of Spanish commercial documents, and familiarize students with relevant bibliographical resources. *Cannot be taken for credit by students who received credit for SPN 446, 447 Business Spanish.*
Prereq: SPN 443 Advanced Spanish Grammar and Composition, SPN 444 Advanced Spanish Conversation and Composition or departmental permission.

SPN 656 Spanish for Science and Technology I. Three sem hours
Study of Spanish used in scientific and technical fields. In-depth study of two to three topics per semester. Topics may include automation, automobile components, data processing, nutrition, etc. *In Spanish.*
Prereq: Bachelor's degree or equivalent with a major/minor in Spanish or departmental permission.

SPN 657 Spanish for Science and Technology II. Three sem hours
Study of Spanish used in scientific and technical fields. In-depth study of two to three topics per semester. Topics may include automation, automobile components, data processing, nutrition, etc. *In Spanish.*
Prereq: Bachelor's degree or equivalent with a major/minor in Spanish or departmental permission.

SPN 679, 680, 681 Special Topics. One, two and three sem hours
An intensive study of a specific area of Spanish language or literature, to be determined by the instructor's field of specialization and student interest. *This course may be repeated for credit with permission. Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

SPN 682 U.S. Dialects of Spanish. Three sem hours
A study of the dialects of Spanish spoken in the U.S., including their historical background and their modification through contact with English. A minimum of 24 hours of field experience will be required.
Prereq: An introductory course in linguistics.

SPN 697, 698, 699 Independent Study. One, two and three sem hours (Formerly SPN 597, 598, 599)
Intensive study of a problem under the direction of a member of the graduate staff.
Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit in consultation with graduate adviser. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- TSL 410 TESOL Methods (3)
 FLA 421 History and Theory of Bilingual Education (3)
 FLA 423 Bilingual Multicultural Methods K-12 (3)
 FLA 479 Special Topics (3)
 FLA 490 Internship in Language and International Trade (3)
 FRN 431 Studies in French Theatre (3)
 FRN 432 Studies in French Poetry (3)
 FRN 433 Studies in French Prose (3)
 FRN 441, 442 Nineteenth Century French Literature (3 each)
 FRN 443 Advanced French Grammar and Composition (3)
 FRN 444 Advanced French Conversation and Composition (3)
 FRN 446, 447 Business French I and II (3 each)
 FRN 451, 452 Readings in French (1 and 2)
 FRN 456, 457 Scientific and Technical French I and II (3 each)
 FRN 461, 462 Twentieth Century French Literature (3 each)
 FRN 471, 472 Eighteenth Century French Literature (3 each)
 FRN 481 History of The French Language (3)
 FRN 491, 492 Seventeenth Century French Literature (3 each)
 GER 425 German Literature from the Middle Ages to the Baroque (3)
 GER 426 German Literature from 1750-1850 (3)
 GER 427 German Literature from 1850-1945 (3)
 GER 428 German Literature from 1945 to the Present (3)
 GER 443 German Syntax and Advanced Composition (3)
 GER 444 Advanced German Conversation (3)
 GER 451, 452 Readings in German (1, 2)
 GER 456, 457 Technical German I and II (3 each)
 SPN 443 Advanced Spanish Grammar and Composition (3)
 SPN 444 Advanced Spanish Conversation and Composition (3)
 SPN 445 Spanish-American Prose (3)
 SPN 448 Modern Drama (3)
 SPN 449 Romanticism (3)
 SPN 451, 452, 453 Readings in Spanish (1, 2, 3)
 SPN 454 Modernism in Spanish America (3)
 SPN 455 The Generation of 1898 (3)
 SPN 456, 457 Scientific and Technical Spanish I and II (3 each)
 SPN 463 Don Quixote (3)
 SPN 464 Drama and the Golden Age (3)
 SPN 465 Modern Novel (3)
 SPN 471 Culture and Literature of the Hispanic Groups in the U.S. (3)
 SPN 482 Language of Hispanic Groups in the U.S. (3)
 LIN 425 Second Language Acquisition (3)

GEOGRAPHY AND GEOLOGY

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Department Head
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The Department of Geography and Geology offers courses leading to the degree of master of arts and to the degree of master of science. Students who complete programs emphasizing man and his works receive the degree of master of arts; those whose programs stress physical geography, cartography and remote sensing, urban and regional planning and other aspects of environmental studies receive the master of science degree. The department offers a master of science in historic preservation with concentrations in preservation planning, administration, heritage interpretation and tourism.

The department awards several graduate assistantships each year. A graduate assistantship stipend ranges from \$4,800 - \$5,000, depending on the appointment. In addition, the University pays full tuition for 18 credit hours for each fiscal year of the assistantship, as well as registration, student government and health service fees. The total package approximates \$6,300, depending whether you are a resident or non-resident of Michigan. Fellowships are also awarded to those qualified students with high grade point averages who are not receiving other financial assistance.

GEOGRAPHY PROGRAM

Objectives

The main objectives of the master's program in geography are to train individuals in the systematic, regional and technical aspects of the discipline. In addition, the program offers opportunities for candidates to experience and participate in geographic research and its possible applications in the service of mankind and his/her environment. Upon completion of the master's degree, students in geography should be able to: participate in further study toward a doctoral degree;

apply geographic methods to various professional research and development occupations; or teach in community colleges as well as secondary and elementary schools. Geographers are also employed by public and private agencies concerned with such problems as: urban and regional planning; foreign area analysis; resource assessment and management; agricultural, population marketing and transportation surveys; cartographic research and design; recreational planning; and environmental impact assessment.

Admission Requirements

For admission to a master's degree program in geography, the student must have a bachelor's degree from an accredited institution; meet Graduate School degree admission requirements; and must have attained at least a 2.75 grade point average in his/her major field or in the equivalent of a geography minor during his/her last two undergraduate years, or must have scored at least 1,000 on the aptitude test of the Graduate Record Examination. Students who have majored in a field other than geography may be admitted to a program with the understanding that they must satisfactorily complete a minimum of 36 semester hours of undergraduate and graduate work in geography for the master's degree.

Degree Requirements

The master's degree in geography may be completed by choosing option one, option two or option three. Each require a minimum of 30 credit hours. The differences between these options are discussed below.

All candidates for the master's degree must complete, within the total of their undergraduate and graduate study, at least two physical geography courses, at least two cultural (i.e., historical, human or urban) geography courses, at least one regional geography course (not including GEO 110 World Regions) and at least two courses from among cartography, quantitative methods and geographic field methods, or other technique courses. GEO 500 Resources and Nations, GEO 501 and 502 Earth Science I and II may not ordinarily be counted for credit toward a master's degree in geography.

All graduate students are required to pass a comprehensive oral examination as part of the master's degree program. The oral examination, conducted by a committee of the graduate faculty, will cover the field of geography and will emphasize the student's special field of interest.

Once the student has completed a minimum of 12 hours of graduate work in geography, he/she must formally declare to the graduate coordinator which of the options he/she plans to pursue.

The student who selects an option that does not include a thesis should be aware that, if a decision is made to ultimately pursue a doctoral degree, difficulty may be encountered in gaining entry into such programs. The student's selection of the option is subject to approval by the graduate coordinator. A student

may, with the approval of the graduate coordinator, change from one option to another. Graduate credit earned more than six years prior to the date on which the degree is to be granted may not be applied to meet graduation requirements unless it can be validated in accordance with procedures established by The Graduate School.

EXPLANATION OF MASTER'S OPTIONS

Option One

Students whose life/career goals include research activity may elect to complete a thesis (representing six semester hours credit). The thesis topic and design are developed by the master's candidate with the advice of a departmental graduate faculty member. The completion of a thesis is especially recommended as a valid learning experience for those who intend to pursue further advanced degrees, but is also useful for those who seek employment with organizations that perform research functions.

Option one requires the completion of 30 semester hours as follows: 18-24 hours in geography, zero to six hours in approved cognates, and the remaining six hours of thesis credit.

Option Two

This option is designed to serve individuals who may prefer additional course work and/or work experience as a substitute for thesis research and would benefit from an off campus internship experience. It also offers an opportunity to in-service individuals (e.g., planners, soil scientists and others) to reorganize and apply the subject matter of their work experience to an EMU course under the supervision of a departmental graduate faculty member who evaluates the student's performance. Either of these supervised experiences may be accomplished by enrolling in GEO 687, 688 or 689 Internship in Geography/Geology, with approval of the graduate coordinator.

Of the 30 hour total, a maximum of six hours may be taken as cognate hours outside the department. A requirement of this option is the successful completion, while in residence at EMU, of two hours achieved through the composition of a paper of publishable quality. Graduate faculty in the department must be consulted in the initiation, design and completion of the paper. A graduate faculty member also will assess the completed paper.

Option Three

This option is designed to enhance the career of practicing or prospective elementary and secondary teachers. Students may elect to develop their teaching units under the supervision of three different faculty members. Each unit, worth two credit hours, shall be taken under GEO 671, 672, or 673 Geography Teaching Projects.

HISTORIC PRESERVATION PROGRAM

The Department of Geography and Geology administers an interdepartmental program in historic preservation. The program includes a 36-hour master of science curriculum in historic preservation, or as a non-degree student, a five course curriculum granting a certification of completion and satisfactory academic performance. Students in the master's program may elect to pursue a general curriculum in historic preservation or to take their degree in historic preservation with a concentration in either preservation planning, historic administration, or heritage interpretation and tourism. This choice must be formally declared to the program coordinator by the time the student has completed 20 hours of graduate work in historic preservation.

Objectives

The master's curriculum emphasizes preparation for careers in historic preservation in a planning, administrative, historic museum or consulting and heritage tourism capacity, while the certification curriculum is designed primarily for in-service planners, historic district commissioners and other individuals desiring to expand their understanding of the preservation field. The master's program includes work study, internship, cooperative education and field study opportunities, providing practical experience as an added dimension of the program.

Admission Requirements

Admission to the master's degree program in historic preservation is limited. The student must have a bachelor's degree from an accredited institution; meet Graduate School degree admission requirements; and must have attained at least a 2.75 in the major field during the last two undergraduate years. In addition to applying to The Graduate School, the applicant should obtain program application forms from the historic preservation coordinator and comply with the application procedures therein stipulated.

Non-Degree Admission Status

For those students who show promise, but do not meet the undergraduate grade point average (2.5) requirement of The Graduate School or the departmental GPA requirements, whichever is higher, non-degree admission (status 1: academic deficiencies) may be granted. (See Non-Degree Admission Status page 19.) Students may not repeat courses to attain the required grade point average. Students who successfully meet the probationary requirements of non-degree admission will be granted regular admission.

Certification curriculum applicants must have a bachelor's degree from an accredited institution and meet The Graduate School non-degree student status requirements. Any student meeting these requirements may pursue the certification. The student should consult with the historic preservation coordinator once admitted to non-degree student status by The Graduate School.

Degree Requirements

1. The completion of a minimum of 36 hours of approved graduate-level course work beyond the bachelor's degree and such prerequisite courses (see below) as designated by the program coordinator. Prerequisite courses may be taken concurrently with degree courses.
2. The selection of a general course of study in historic preservation or an emphasis in either historic preservation planning, historic administration or heritage interpretation and tourism.
3. Completion of up to 17 credit hours of prerequisite courses. The number of hours and the specific courses will be selected by the program coordinator from the following list and will depend upon the student's prior course work and the concentration pursued.
 - (a) GHP 377 Architectural Nomenclature (all concentrations)
 - (b) GEO 333 Settlement Geography (all concentrations)
 - (c) FA 429 History of American Architecture (all concentrations)
 - (d) Two courses in American history (historic administration and heritage interpretation concentrations)
 - (e) One course in American history (preservation planning concentration)
 - (f) One course from the following:
 - GEO 332 Urban Geography
 - GEO 423 Principles of City and Regional Planning
 - GEO 435 Urban Form and Function (preservation planning concentration)
 - (g) GES 401 Cartography (preservation planning concentration)
 - (h) GEO 446 Heritage Interpretation and Tourism (heritage interpretation and historic administration concentrations)
4. Core requirements (15-20 hrs.):
 - GHP 530 Introduction to Historic Preservation
 - GEO 531 American Cultural Landscapes
 - GHP 547 Problems in Architectural Interpretation
 - GEO 548 American Folk Architecture
 - PLS 520 Land Use and Preservation Law
 - GHP 630 Documenting Historic Buildings
 - GHP 690, 691 or 692 Historic Preservation Project

5. HIS 505 Historical Methods or HIS 533 Studies of Techniques in Local History also is required of all students except those who already possess a master's degree in any subject which required writing a thesis or who have written a senior paper in history.
6. The remaining hours will be selected in conjunction with the program coordinator and should be compatible with the student's career objectives. If the student chooses to pursue one of the three preservation concentrations, at least 12 hours should be allowed to that end. Cooperative education, internship and historic preservation field project experiences are recommended options.

Certification Requirements

1. Required courses:
 - FA 429G History of American Architecture
 - GHP 530 Introduction to Historic Preservation
2. Three courses from the following:
 - GEO 435G Urban Form and Function
 - HIS 505 Historical Method
 - PLS 520 Land Use and Preservation Law
 - GEO 531 American Cultural Landscapes
 - HIS 533 Studies and Techniques in Local History
 - GHP 533 Introduction to Historic Administration
 - GHP 534 Community Interpretation and Appropriate Tourism
 - GHP 535 Heritage Interpretation Planning
 - GHP 536 Heritage Interpretation Delivery
 - GHP 537 Interpretative Programming for Organizations
 - GHP 547 Problems in Architectural Interpretation
 - GEO 548 American Folk Architecture
 - GHP 557 Community Development and Downtown Revitalization
 - GEO 570 Rural Planning and Preservation
 - GHP 572 Funding Preservation Projects
 - GHP 590, 591 or 592 Special Topics in Historic Preservation
 - GHP 630 Documenting Historic Buildings
 - GHP 631 Preservation Administration and Planning
 - GHP 634 Heritage Interpretation Theory
 - GHP 636 Historic Preservation Field Project
 - GHP 679, 680 or 681 Special Topics in Historic Preservation
 - GHP 694 Seminar in Neighborhood Preservation

GEOGRAPHY COURSES FOR NON-SPECIALIZING STUDENTS

GEOGRAPHY COURSES

GEO 500 Resources and Nations. Two sem hours (Formerly GEO 507)

Patterns of distribution, production, consumption and adequacy of physical and cultural resources; different management characteristics and roles which resources play in the development of nations. *Applicable to the master's degree by petition only.*

GEO 501 Earth Science I. Two sem hours (Formerly GEO 508)

An introduction to the structure and composition of the earth, including volcanism, earthquakes and land-forming processes. *Applicable to the master's degree by petition only.*

GEO 502 Earth Science II. Two sem hours (Formerly GEO 509)

Weather and climate and related phenomena such as natural vegetation and soils. *Applicable to the master's degree by petition only.*

REGIONAL GEOGRAPHY

GEO 510 The American Midwest. Two sem hours (Formerly GEO 569)

A regional treatment. The natural setting, the distribution of the people, the important occupations and the present and future problems in each of the several regions. *Prereq: A course in the geography of the U.S. or North America or departmental permission.*

GEO 512 Middle America and the Caribbean World. Two sem hours (Formerly GEO 542)

A regional study of Mexico, Central America and the islands of the Caribbean. Conditions leading to the present political upheavals in the area; an effort is made to chart future trends.

Prereq: A course in geography of Latin America or departmental permission.

GEO 513 South American Lands. Two sem hours (Formerly GEO 541)

A regional study of the countries of South America; resources, people and national cultures are stressed.

Prereq: A course in the geography of Latin America or departmental permission.

GEO 515 Environmental Problems and Strategies in Europe. Two sem hours (Formerly GEO 555)

Causes and consequences of environmental degradation in Europe. Human landscape modification, dense population and political fragmentation as factors in creating serious pollution problems. European efforts to preserve and restore the environment.

Prereq: GEO 319 Geography of Europe or equivalent, or departmental permission.

GEO 516 Problems in Soviet Geography. Two sem hours (Formerly GEO 559)

Individual and group research in selected problems in the geography of the Soviet Union.

Prereq: A course in Soviet geography or departmental permission.

GEO 518 Problems of Sub-Saharan Africa. Two sem hours (Formerly GEO 574)

Individual research in selected problems in geography in Sub-Saharan Africa.

Prereq: A course in the geography of Africa or departmental permission.

HISTORICAL GEOGRAPHY

GEO 531 American Cultural Landscapes. Two sem hours

The diversity of the human geography of the United States will be explored in terms of representative cultural landscapes of selected regions. Historic characteristics of urban and rural landscapes in America will be analyzed by means of readings, audiovisual presentations and discussions.

GEO 532 Historical Geography of Michigan. Two sem hours (Formerly GEO 552)

Geographical changes and developments in Michigan from pre-colonial times to the present. The geography of the state in each of the important stages of its history.

Prereq: One geography course and one American history course or departmental permission.

GEO 541 Material Cultures: A Disciplinary Overview. Three sem hours

Introduces and examines material culture from the perspective of six or seven academic disciplines that make use of objects in their analysis of culture. Major emphasis is given to American material culture.

HUMAN GEOGRAPHY

GEO 544 Problems in Economic Geography. Two sem hours
(Formerly GEO 649)

Research problems and techniques dealing with the production, distribution and consumption aspects of economic geography.

Prereq: A course in economic geography or departmental permission.

GEO 545 Studies in Political Geography. Two sem hours

Study and comparison of the factors important in the political geographies of several countries.

Prereq: A course in the geography of Europe or departmental permission.

GEO 546 Problems in Population Geography. Two sem hours

Readings, discussion and research of selected problems in population geography.

Prereq: GEO 361 Geography of Population or departmental permission.

GEO 548 American Folk Architecture. Two sem hours

Folk structures such as rural houses, barns, fences and covered bridges are analyzed as aspects of material culture and cultural landscape contributing to regional personality within the United States. Attention is given to old world antecedents, colonial development, and diffusion of regional forms from their colonial hearths.

Prereq: GEO 531 American Cultural Landscapes or departmental permission.

GEO 549 Cultural Landscape Interpretation. Two sem hours

Principles of cultural landscape interpretation as well as the development of local interpretation keys are investigated. Analysis of cultural landscapes is carried out in lectures, field practice, discussion sessions, and some student reports.

URBAN AND REGIONAL PLANNING

GEO 550 Problems in Urban Geography. Two sem hours
(Formerly GEO 544)

Selected geographic problems: urban sprawl, deterioration of the urban environment, changing urban functions, and others. Acquisition of analytical techniques and geographical insights.

Prereq: A course in urban geography or departmental permission.

GEO 552 Processes of Suburban Development. Two sem hours
(Formerly GEO 586)

The evolution of suburbs, the evaluation of the suburban environment, land use change in proximity to cities and land use planning factors associated with suburban growth.

Prereq: An urban or regional planning course or departmental permission.

GEO 553 Urban and Regional Planning. Two sem hours
(Formerly GEO 585 City and Regional Planning)

Philosophy, history, legal aspects and techniques of the planning process. Case studies illustrate the impact of planning on economic, social, and political activities.

Prereq: An urban or regional planning course or departmental permission.

GEO 554 Urban and Regional Planning in Europe. Two sem hours

Historical background, current problems, and future strategies of urban and regional planning efforts in Europe. Political, economic, and cultural aspects of the planning process are considered.

Prereq: GEO 319 Geography of Europe, or equivalent, or departmental permission.

GEO 555 Comprehensive Planning. Two sem hours
An integration of planning tools, data sources, forecasting, and standards to produce a comprehensive plan that contains components on land use, transportation, and capital improvements.

Prereq: GES 215 Land Use Planning or equivalent.

GEO 556 Zoning. Two sem hours

This course will prepare students to understand, interpret and critique a zoning ordinance and to become familiar with planned unit development and site plan review.

Prereq: GES 315 Land Use Planning or equivalent or departmental permission.

GEO 557 Community Development and Downtown Revitalization. Three sem hours

Explores current approaches to community development in the context of downtown commercial revitalization. Particular emphasis is given to the use of historic preservation planning as a strategy for downtown revitalization. Components of a downtown preservation plan to be reviewed include history, urban design, architecture, economics, implementation and preservation law, and public policy.

Prereq: GEO 553 Urban and Regional Planning or GHP 530 Introduction to Historic Preservation.

PHYSICAL GEOGRAPHY**GEO 560 Processes of Landform Development. Two sem hours
(Formerly GEO 522)**

Interrelations of climate, microclimate, vegetation, near-surface materials, soil formation and types of landform in Michigan, emphasizing observation in the field and aerial photographs.

GEO 561 Physical Landscapes. Two sem hours

An examination of the processes involved in creating and modifying the earth's surface and the theoretical approaches used in examining the problems of selected landscapes.

Prereq: One course in physical geography or geology, or departmental permission.

GEO 562 Weather. Two sem hours

Aims at understanding the atmospheric processes which generate all weather, applies observations of weather elements to analysis of weather phenomena, concludes with experimental forecasting. One hour lecture and two hours laboratory per week. *Not open to students with credit in GES 324 Weather.*

GEO 563 Climate. Two sem hours

Regional climates are assessed in terms of characteristic types and frequencies of weather, with emphasis on geographic and atmospheric causes of differences and variations. Data in a number of statistical and graphical forms are interpreted in evaluating and classifying climates. One hour lecture and two hours laboratory per week.

Prereq: GES 324 Weather or GEO 562 Weather.

**GEO 564 Common Rocks and Minerals. Two sem hours
(Formerly GEO 529)**

Materials and processes in the formation and distribution of important minerals and rocks. *Not open to students with credit in GLG 229 Rocks of Michigan.*

**GEO 565 Principles of Earth History. Two sem hours
(Formerly GEO 530)**

Relationship of geologic processes to the rock record of the earth, its relationship to the solar system, time, earth change, and the succession of life. *Not open to students with credit in GLG 161 Historical Geology.*

**GEO 566 The New Earth Science. Two sem hours
(Formerly GEO 510)**

Study of planet Earth—its interior and surface—emphasizing the new theories of continental drift and sea floor spreading.

Prereq: GES 108 Earth Science or GES 202 Science for Elementary Teachers or GEO 501 Earth Science I, or departmental permission.

**GEO 567 Introduction to Coastal Environments. Two sem hours
(Formerly GEO 531)**

Description and analysis of the physical and biogeographical processes of the coastal ocean, Great Lakes, and inland lakes. Distribution and origin of the coastal environments, natural and human modification of beach, river valley, estuary, marsh, delta, and coral reef environments. Classroom demonstrations and field trips.

Prereq: Departmental permission.

**GEO 568 Biogeographical Resources. Three sem hours
(Formerly GEO 568, 528 Biogeography)**

Natural ecological function and management of soils and agricultural areas, natural vegetation and timber harvest regions, as well as wildlife habitats. Worldwide trends in resource use. Resource allocation models.

GEO 569 Principles of Physical Hydrology. Two sem hours

An examination of the physical aspects of water in the environment. Hydrologic cycles, water balances, flood plain evaluation, drainage basin analysis, and ground water characteristics are highlighted.

Prereq: One course in physical geography or departmental permission.

GEO 570 Rural Planning and Preservation. Two sem hours

This course seeks to develop a rural plan and evaluate implementation alternatives.

Prereq: GES 215 Land Use Planning, GHP 335 Historic Preservation, GHP 530 Introduction to Historic Preservation or departmental permission.

GEOGRAPHICAL METHODS

GEO 571 Teaching of Social Studies. Two sem hours
Subjects included: selecting, securing, organizing, presenting, and evaluating materials. *Not open to students who hold credit in GEO 348 Teaching of Social Studies in Elementary Schools.*

GEO 575 Interpretation of Aerial Photography. Three sem hours

Interpretation of black and white, color, and color infrared photographs. Emphasis on photo interpretation, measurements, and mapping. Class project and optional field trip. *Not open to students with credit in GES 305 Aerial Photograph Interpretation.*

Prereq: Graduate standing and MTH 105 College Algebra or MTH 107 Plane Trigonometry.

GEO 576 Photography. Two sem hours
An interpretation and analysis of geological and geometric features of the earth. Aerial photos and remote sensing images will be utilized to detect aggradational and degradational processes in nature.
Prereq: GEO 575 Interpretation of Aerial Photography or two courses in geology/physical geography.

GEO 577 Geographical Literature. Two sem hours
An evaluation of journals, abstracts, and government publications. Visits to local specialized resource centers to investigate maps and documents. Preparation of bibliographies and assessment of literature on selected topics in geography.

GEO 578 Advanced Computer Mapping. Two sem hours
Students will modify existing programs and operate computers, digitizers, plotters, and printers in direct mode to produce thematic and geographic information system maps. Four laboratory hours each week.
Prereq: GES 475 Computer Mapping and a course in basic programming or departmental permission.

GEO 579 Geographic Information Systems. Two sem hours
Use of computers for storing, displaying, and manipulating spatial information. Principles of geocoding, data capture, and data analysis. Applications include land capability, facilities management, and locational analysis for land planning, environmental assessment, and historic preservation.
Prereq: A course in cartography or computer mapping.

GEO 580 Urban Environmental Management. Two sem hours
(Formerly GEO 587)
Survey and evaluation of geologic, topographic, geomorphologic, hydrologic, and atmospheric factors which potentially and actually have impact on urban development and environmental management.
Prereq: An urban or regional planning course or departmental permission.

GEO 581 Advanced Environmental Assessment. Three sem hours
(Formerly Environmental Assessment and Planning)
Preparation and critique of environmental assessments and site plans. Emphasis on current environmental problems, regulations, data interpretation, and impact mitigation. Optional field trips.
Prereq: GES 495 Environmental Assessment and Planning or graduate standing.

GEO 582 Remote Sensing of Earth Resources. Three sem hours
(Formerly GEO 505)
Manual interpretation and microcomputer processing of various types of remote sensing imagery. Application of this technology to land use planning, environmental assessment, information systems, and Third World development.
Prereq: An undergraduate course in aerial photo interpretation or remote sensing.

GEO 583 Cartographic Design. Three sem hours
Emphasis is on developing map-making skills using a variety of instruments and techniques. Quality work is stressed to prepare for professional employment. *Not open to students with credit in GES 401 Cartography or GES 402 Advanced Cartography.*

GEO 587 Cooperative Education in Geography and Geology. Three sem hours
A semester equivalent or full-time employment at a private firm, public agency or non-profit institution which provides an applied experience for the graduate student. Participating students must be recommended to the Cooperative Education Office by a departmental faculty member. A written report is required at the end of the employment period. *Credit on the geology and geography programs is subject to departmental approval. Offered on credit/no credit basis.*
Prereq: Graduate student status and enrollment in one of the department's graduate programs. Admittance by application only.

GEO 590, 591, 592 Special Topics. One, two and three sem hours
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. *Not more than six hours of special topic courses may be used on a degree program.*

GEOGRAPHY COURSES FOR ADVANCED GRADUATE STUDY

GEO 671, 672, 673 Geography Teaching Projects. Two sem hours each
Development of three teaching units for geographic classes under supervision of one, two or three faculty members.
Prereq: Departmental permission.

GEO 674 Internship Report. Two sem hours
A paper of publishable quality or a major professional report related to an internship experience will be written by the student and approved by two members of the graduate faculty.
Prereq: Departmental permission.

GEO 675 History of Geographic Thought. Two sem hours
(Formerly GEO 670)

The main themes of geographic thought from ancient times to the present day; the evolution of ideas fundamental to modern American geography. Significant geographical journals and other basic information sources are identified and discussed.

Prereq: Departmental permission.

GEO 676 Area Analysis. Two sem hours
(Formerly GEO 660)

Advanced geography field research. A philosophy of field geography; selected problems concerned with industry, recreation, agriculture, and commerce.

Prereq: Fifteen hours of credit in geography, including GES 303 Field Geography or departmental permission.

GEO 677 Seminar in Methods and Research. Two sem hours
(Formerly GEO 696)

Basic research techniques applicable to geography. Location and identification of source materials, statement and analysis of problems and preparation and presentation of results of research.

Prereq: Departmental permission.

GEO 680, 681 Special Topics. Two or three sem hours

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. Information on content can be obtained at department office. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

GEO 683 Field Studies in Michigan. Two sem hours
(Formerly GEO 655)

The geographic and geologic environment: on-campus sessions and field trips include both subject matter and methodological concern. Write department for information on content. Offered as a two-week workshop in the summer session.

GEO 685 Geography Field Trips. Four sem hours
(Formerly GEO 568)

Representative geographic regions in the area are visited; significant geographic and geologic characteristics of each region. Students will have an opportunity to visit typical mining, forestry, agricultural, industrial, and cultural enterprises of the regions. A written report is required.

GEO 687, 688, 689 Internship in Geography/Geology. Four, five and six sem hours

Supervised internship in some aspect of geography or geology which is of mutual interest to the student and the public or private agency that would "employ" the student. This experience is designed to integrate academic training with practical application. This course may be taken only once.

Prereq: Departmental permission.

GEO 690, 691, 692 Thesis. One, two and three sem hours

An intensive study of a problem or problems under the direction of a faculty member.

Prereq: Departmental permission.

GEO 694 Seminar in Geography. Two sem hours
(Formerly GEO 596)

Research, reports, and group discussions emphasizing the distinctive concerns and methodology of geography. The particular topic that is examined will vary from semester to semester. Students may elect this seminar several times as long as the topic studies are different. Information regarding the content of a particular seminar may be obtained at the department office. *Not more than six hours of seminar courses may be used on a degree program.*

Prereq: Departmental permission.

GEO 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly GEO 597, 598, 699)

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

HISTORIC PRESERVATION COURSES

GHP 530 Introduction to Historic Preservation. Two sem hours

Survey of the growth of historic preservation in the United States. Identification of preservation techniques, and federal, state, and private preservation agencies and legislation; value and objectives of preservation.

GHP 533 Introduction to Historic Administration. Three sem hours

A general introduction to the field of historical administration with emphasis on historical museums. Also, attention is paid to the operational concerns, problems, and training requirements in a variety of other historical agencies.

GHP 534 Community Interpretation and Appropriate Tourism. Three sem hours
(Formerly Heritage Interpretation Methods)

Traces the origin and development of the community interpretation process and outlines its emerging role in

the creation of appropriate tourism programs. The empowerment of local hosts to interpret their area's heritage, visitor behavior, operational issues, and the range of potential heritage interpretation experiences will be discussed.

Prereq: GEO 446 Heritage Interpretation and Tourism, or departmental permission.

GHP 535 Heritage Interpretation Planning. Three sem hours
(Formerly Heritage Interpretation Systems)

Extensive practice in the systematic planning of heritage interpretation programs, including analysis of heritage resources, target guest groups, intended programs, goals and objectives, themes and sub-themes, desired emotional/sensory experiences, factual concepts, chosen delivery methods, and evaluation scheme.

Prereq: GHP 534 Community Interpretation and Appropriate Tourism.

GHP 536 Heritage Interpretation Delivery. Three sem hours
(Formerly Heritage Interpretation Programming)

A survey and capabilities analysis of traditional and innovative heritage interpretation delivery methods. Extensive practice in the preparation, delivery, and evaluation of quality personal and non-personal interpretative experiences for selected guest groups in selected setting.

Prereq: GHP 534 Community Interpretation and Appropriate Tourism.

GHP 537 Interpretive Programming for Organizations. Three sem hours

A survey of the existent interpretive programming of selected corporations, institutions, and agencies. Practice in the development and proposal of comprehensive interpretive programs for organizations.

Prereq: GHP 534 Community Interpretation and Appropriate Tourism, and one course from: GHP 535 Heritage Interpretation Planning, GHP 536 Heritage Interpretation Delivery, or departmental permission.

GHP 547 Problems in Architectural Interpretation. Three sem hours

The course deals with problems in dating historic structures. Analysis is based on style, construction methods, and detailing. Students learn through slide lectures, field trips, and term projects how to evaluate buildings for architectural significance.

Prereq: FA 429 History of American Architecture.

GHP 557 Community Development and Downtown Revitalization. Three sem hours

Explores current approaches to community development in the context of downtown commercial revitalization. Particular emphasis is given to the use of historic preservation planning as a strategy for downtown revitalization. Components of a downtown pres-

ervation plan to be reviewed include history, urban design, architecture, economics, implementation and preservation law, and public policy.

Prereq: GHP 530 Introduction to Historic Preservation or GEO 553 Urban and Regional Planning.

GHP 572 Funding Preservation Projects. Three sem hours

Student is exposed to planning, implementation, and follow-up documentation of various types of historic preservation grants. Course also includes discussions on endowments, wills, bequests and financial planning, and development for historical agencies.

Prereq: GHP 530 Introduction to Historic Preservation or GHP 533 Introduction to Historical Administration or departmental permission.

GHP 587 Cooperative Education in Cultural Resource Management. Three sem hours

A semester equivalent of full-time employment at a private firm, public agency or non-profit institution selected to provide the student with a paid work experience in historic preservation. Participating students must be recommended to the Cooperative Education Office by a departmental faculty member. A written report is required at the end of the employment period. Credit on the historic preservation program is subject to departmental approval. Offered on credit/no credit basis.

Prereq: Graduate student status and enrollment in the historic preservation program. Admittance by application only.

GHP 590, 591, 592 Special Topics. One, two and three sem hours

An experimental course for subject material not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. Not more than six hours of special topics courses may be used on a degree program.

GHP 630 Documenting Historical Buildings. Two sem hours

Lecture and practical experience in documenting the built environment. Techniques of architectural survey, researching the history and former occupants of a building and preparation of a National Register nomination. Student projects and possible field trips.

Prereq: GHP 530 Introduction to Historic Preservation and FA 429 History of American Architecture or departmental permission.

GHP 631 Preservation Administration and Planning. Two sem hours

Study of cultural resource management objectives, strategies and techniques, including specific practice in the preparation of various types of National Register nomi-

nations, Department of Interior tax certifications and a local historic district ordinance.

Prereq: GHP 530 Introduction to Historic Preservation and GHP 547 Problems in Architectural Interpretation.

GHP 634 Heritage Interpretation Theory. Two sem hours
(Formerly Heritage Interpretation Theory and Evaluation)

Examines the theoretical basis for heritage interpretation, including inter-related subsets of community, site-based, thematic, and person-to-person interpretation. Explores the needs for and the predictable future applications of heritage interpretation processes of cultural stabilization, preservation, revitalization, and tourism.

Prereq: GHP 534 Community Interpretation and Appropriate Tourism and two courses from GHP 535 Heritage Interpretation Planning, GHP 536 Heritage Interpretation Delivery or GHP 537 Interpretative Programming for Organizations.

GHP 636, 637 Historic Preservation Field Project. Three, six sem hours
Specifically-arranged supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.

Prereq: Departmental permission.

GHP 679, 680, 681 Special Topics in Historic Preservation. One, two and three sem hours

An experimental course for subject material not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. *Not more than six hours of special topics courses may be used on a degree program.*

Prereq: Departmental permission.

GHP 687, 688, 689 Internship in Cultural Resource Management. Four, five and six sem hours

Supervised internship in some aspect of historic preservation which is of mutual interest to the student and the public or private agency that would "employ" the student. This experience is designed to integrate academic training with practical application. *A maximum of two internships is allowed totaling no more than eight semester hours is allowed.*

Prereq: Departmental permission.

GHP 690, 691, 692 Historic Preservation Project. One, two and three sem hours

The student conceives his or her own idea for a preservation-related individual project. The student is responsible for the design or planning of the project and carrying it to completion. Required of all historic preservation

majors and represents the student's culminating experience prior to graduation.

Prereq: Departmental permission.

GHP 694 Seminar in Neighborhood Preservation. Two sem hours
(Formerly GEO 693)

The visibility and desirability of neighborhood preservation is discussed and observed from the perspective of affected inhabitants and from the broader urban to national contexts.

Prereq: GHP 530 Introduction to Historic Preservation or departmental permission.

GHP 697, 698, 699 Independent Study. One, two and three sem hours

An intensive study of a problem or specifically-focused subject matter pertaining to the field of cultural resource management under the direction of a University faculty member.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- GES 401 Cartography (3)
- GES 402 Advanced Cartography (3)
- GEO 423 Principles of City and Regional Planning (3)
- GLG 428 Optical Mineralogy (4)
- GLG 430 Petroleum Geology (3)
- GEO 432 Political Geography (3)
- GEO 433 Political Geography of the United States (3)
- GEO 435 Urban Form and Function (3)
- GEO 438 Industrial Location and Development (3)
- GLG 439 Economic Geology (3)
- GEO 440 World Food Systems (3)
- GEO 441 Transportation Geography and Planning (3)
- GEO 445 Cultural Tourism Resources (3)
- GLG 448 Subsurface Water Resource (3)
- GES 450 Lake and Coastal Management (3)
- GLG 459 Groundwater Modeling (3)
- GLG 460 Contaminant Hydrology (3)
- GES/
GLG 470 Quantitative Methods in Geography and Geology (3)
- GES 475 Computer Mapping (3)
- GES 485 Introduction to Remote Sensing (3)
- GES 495 Environmental and Planning Assessment (3)

HISTORY AND PHILOSOPHY

Ira M. Wheatley
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The Department of History and Philosophy offers a master of arts degree in history. The department also coordinates an interdisciplinary master of arts in social science and a master of arts in liberal studies with a concentration in social science and American culture. Graduate and advanced graduate certificates in state and local history also are offered.

MASTER OF ARTS IN HISTORY

Program Objectives

The master of arts in history enables students to acquire both general and specific knowledge concerning the human past. The program features specialization and breadth in subject matter through the requirements pertaining to areas and fields. It also incorporates instruction in historiography and methodology as well as practice in doing research and writing history. Through the curriculum, students learn how to locate, evaluate, interpret, compile and present historical data drawn from primary and secondary sources. Thus, the master of arts in history helps students refine their understanding of the meaning and matter of history. The degree can serve as preparation for teaching on the secondary level, for positions in government or business or for further graduate work on the doctoral level.

Admission Requirements

In addition to meeting The Graduate School degree admission requirements, the applicant must present a minimum of 20 semester hours of undergraduate courses in history, with a grade point average of at least 2.5 for all undergraduate courses in history.

Program Description

The master of arts in history is awarded upon satisfactory completion of at least 30 semester hours of credit. This may include up to nine hours in approved upper division undergraduate courses. For purposes of the degree requirements, the courses in history are divided into the following areas:

Area 1
 United States

Area 2
 Europe

Area 3
 Other World Areas

There are three options under which the M.A. in history may be granted. One, Plan A, requires an oral or written examination; another, Plan B, the writing of a thesis; and the third, Plan C, is a local history option. The choice among these options must be made by the time candidates have completed at least 12 but not more than 19 hours on their programs.

Plan A (examination option)

Twenty-four to 30 hours of history courses carrying graduate credit, including:

1. a course in historical method (students entering the program without such credit will register for HIS 505 during their first semester);
2. three courses in each of two areas*;
3. a course in historiography;
4. electives.

An examination, oral or written at the student's option, in each of the two areas of concentration. The scope, nature and method of examination shall be determined by each examiner in consultation with the student.

Zero to six hours of cognate courses chosen in consultation with the graduate adviser.

*Students with records of superior upper division undergraduate performance in these areas may be permitted to substitute elective hours for some or all of these requirements. *The approval of the graduate adviser is required.*

Plan B (thesis option)

Eighteen to 24 hours of history courses carrying graduate credit, including:

1. a course in historical method (students entering the program without such credit will register for HIS 505 during their first semester);
2. three courses in each of two areas**;
3. a course in historiography;
4. electives.

Six hours of directed research concluding with the completion of a thesis program (project). The thesis will be read and accepted by three professors, one of whom will be the director.

Zero to six hours of cognate courses chosen in consultation with the graduate adviser.

****Students with records of superior upper division undergraduate performance in these areas may be permitted to substitute elective hours for some or all of these requirements. *The approval of the graduate adviser is required.***

Plan C (local history option)

Seventeen to 22 hours of history courses carrying graduate credit including:

1. all of the following:
 - HIS 505 Historical Method (3)
 - HIS 530 Urban Communities in U.S. History (3)
 - HIS 533 Studies and Techniques in Local History (3)
 - HIS 688 Historiography (2)
2. one of the following:
 - HIS 482G The Age of Washington and Jefferson (3)
 - HIS 538 Studies in Colonial American History (2)
 - HIS 541 The United States, 1825-1860: Ferment and Reform (2)
 - HIS 583 Studies in the Civil War and Reconstruction (3)
 - HIS 584 Studies in the Gilded Age (2)
 - HIS 585 Studies in 20th Century U.S. History (2)
3. one of the following:
 - HIS 414G The Automobile Industry and Modern America (3)
 - HIS 463G U.S. Labor History (3)
 - HIS 464G History of the Old West, 1540-1890 (3)
 - HIS 525 Technology, Social Change and the Role of Women (3)
 - HIS 531 Studies in Black History (3)
 - HIS 532 Studies in U.S. Indian History (3)
 - HIS 535 Studies in the History of the Family in the U.S. (2)
 - HIS 687 Cooperative Education in History (3)
 - HIS 689 Internship in Local History (3)
 - HIS 697, 698, 699 Independent Study (1,2,3)

4. electives from 2. and 3. above.

A thesis or an oral or visual presentation such as tape recorded material or slides, resulting from original scholarly investigation and accompanied by a written component of at least 50 pages. Thesis credit is earned

in HIS 690, 691, 692; other culminating experience credit may be earned in HIS 687, 689, 697, 698, 699.

Four to six hours of cognate courses from one cognate area (e.g., historic preservation) or topic (musical theatre) chosen in consultation with the graduate adviser.

MASTER OF LIBERAL STUDIES IN SOCIAL SCIENCE AND AMERICAN CULTURE

The primary purpose of the master of liberal studies program is to offer a graduate degree that is interdisciplinary in design and non-professional in orientation. The M.L.S. student will find that this program fosters individual inquiry and offers a number of diverse opportunities for educational development.

Program Objectives

The master of liberal studies in social science and American culture is an interdisciplinary degree which is administered through the Department of History and Philosophy. The degree program draws upon courses in the Departments of History and Philosophy, Art, Communication and Theatre Arts, Economics, English Language and Literature, Foreign Languages and Bilingual Studies, Geography and Geology, Interdisciplinary Technology, Music, Political Science, Sociology and Anthropology, and Teacher Education. The program leading to the degree is a highly flexible one, and is designed to allow students to become familiar with a wide range of American culture. It should be helpful to those students seeking employment in business, industry or government at local, state and federal levels. Persons already employed should find this course of study useful in assisting them in their professional advancement. The program should also provide preparatory training for those desiring to teach at the secondary, junior college, or community college level.

Admission Requirements

Applicants to the M.L.S. must have completed a bachelor's degree, but no particular field or major is required.

Applicants must meet both the undergraduate grade point average for admission and the grade point average for graduation established by The Graduate School.

If the applicant does not meet the requirements for regular admission, the requirements for conditional admission of the department of the primary concentration are to be followed. For those students who show promise, but do not meet the undergraduate GPA requirement, non-degree admission (status 1: academic deficiencies) may be granted. (See Non-Degree Admission Status.)

In order to facilitate course scheduling and field placements, prospective students are strongly encouraged, but not necessarily required, to begin their program of study during the fall semester.

Program Description and Requirements for the Degree

The degree will be awarded upon satisfactory completion of 30 hours of courses approved for graduate credit. These may include a maximum of nine hours in approved 400-level undergraduate courses. The program requirements are as follows:

1. A primary concentration of at least 12 semester hours in American history. No less than six of these semester hours must be in courses numbered 500 or above.
2. Two complementary concentrations totaling at least 12 semester hours selected from no less than two of the following departments: Art, Communication and Theatre Arts, Economics, English Language and Literature, Foreign Languages and Bilingual Studies, Geography and Geology, Interdisciplinary Technology, Music, Political Science, Sociology and Anthropology and Teacher Education. No less than four hours can be taken in each department.
3. Options:
 - a. *Twenty-four* hours of courses approved for graduate credit as noted in one and two above, plus three hours of electives in approved courses in departments participating in the program, and a three hour independent study. A two hour integrated examination (oral or written) in American culture will be administered by a committee of at least two professors selected from departments involved in the student's program.

Total credit hours 30

- b. *Twenty-four* hours of courses approved for graduate credit as noted in 1. and 2. above, plus three hours of electives in approved courses in departments participating in the program, and a creative, scholarly or pedagogical special project for three hours of credit. The special project must be supervised by a committee of at least two professors selected from departments involved in the student's program.

Total credit hours 30

- c. *Twenty-four* hours of courses approved for graduate credit as noted in 1. and 2. above and a thesis for six hours of credit. The thesis must be in some aspect of American culture related to the student's course work and must demonstrate that the student has an integrated knowledge of American life and thought. The thesis committee must consist of at least two professors selected from departments involved in the student's program.

Total credit hours 30

*Departments and courses which constitute the master of liberal studies in social science and American culture are listed below.**

Department of History

- HIS 414G The Automobile Industry and Modern America
- HIS 425G The United States from 1917 to 1945
- HIS 426G The United States Since World War II
- HIS 463G United States Labor History
- HIS 464G History of the Old West, 1540-1890
- HIS 465G United States Constitutional History
- HIS 468G The American Mind to the Civil War
- HIS 469G The American Mind Since the Civil War
- HIS 482G The Age of Washington and Jefferson
- HIS 531 Studies in Black History
- HIS 532 Studies in U.S. Indian History
- HIS 533 Studies and Techniques in Local History
- HIS 535 Studies in the History of the Family in the United States
- HIS 538 Studies in Colonial American History
- HIS 541 The United States, 1825-1860: Ferment and Reform
- HIS 583 Studies in the Civil War and Reconstruction
- HIS 584 Studies in the Gilded Age
- HIS 585 Studies in 20th-Century U.S. History
- HIS 586 United States in World Politics

Department of Art

- FA 429G History of American Architecture

Department of Communication and Theatre Arts

- CTA 446G Contemporary Problems in Telecommunications
- CTA 537 Mass Communications
- CTA 562 American Theater History

Department of Economics

- ECO 460G Industrial Organization
- ECO 501 Macroeconomic Theory and Modern Policy
- ECO 502 Microeconomic Theory and Policy
- ECO 522 Collective Bargaining
- ECO 524 White Collar and Public Employee Unionism
- ECO 551 State and Local Government Finance
- ECO 562 Government and Business

Department of English Language and Literature

- LIT 401G Modern American and British Poetry 1914 to Present
- LIT 409G The Development of American Literature
- LIT 410G Modern American Literature
- LIN 501 American English: Regional and Social Dialects
- LIT 523 Realism and Naturalism in the American Novel
- LIT 525 Henry James
- LIT 526 The Harlem Renaissance and Beyond

- LIT 568 Whitman and Dickinson
 LIT 569 The American Renaissance: 1830-1860
 LIT 576 Studies in 20th-Century American Fiction
 LIT 577 Studies in Twentieth-Century American Poetry

Department of Foreign Languages and Bilingual Studies

FLA 421G History and Theory of Bilingual Education

Department of Geography and Geology

- GEO 423G Principles of City and Regional Planning
 GEO 431G Historical Geography of the United States
 GEO 433G Political Geography of the United States
 GEO 510 The American Midwest
 GHP 530 Introduction to Historic Preservation
 GEO 531 American Cultural Landscapes
 GEO 532 Historical Geography of Michigan
 GEO 548 American Folk Architecture
 GEO 550 Problems in Urban Geography
 GEO 552 Processes of Suburban Development
 GEO 553 Urban and Regional Planning
 GEO 567 Introduction to Coastal Environments
 GEO 570 Rural Planning and Preservation
 GHP 694 Seminar in Neighborhood Preservation

Department of Interdisciplinary Technology

- IDT 500 Introduction to Interdisciplinary Technology
 IDT 501 History of Technology
 IDT 602 Contemporary Issues in Technology

Department of Music

- MUS 504 America's Music
 MUS 642 History and Philosophy of Music Education

Department of Political Science

- PLS 456G Criminal Law I
 PLS 510 Modern Public Administration
 PLS 565 Studies in State and Local Government
 PLS 645 Intergovernmental Relations

Department of Sociology, Anthropology, and Criminology

- SOC 502 Racial and Cultural Minorities
 SOC 503 The Family as an Institution
 SOC 610 Theories of Criminal Behavior
 SOC 611 Sociology of Crime and Its Correction

Department of Teacher Education

- SFD 572 History of American Education
 SFD 603 Groups in Schools
 SFD 673 Black Experience and American Education

*Graduate level *special topics courses* which offer content in American culture may also be used on the M.L.S. program. *Not more than six hours of special topics courses may be used on a degree program.*

MASTER OF ARTS IN SOCIAL SCIENCE

Program Objectives

This degree program is an interdisciplinary effort among the Departments of Economics, Geography and Geology, History and Philosophy, Political Science and Sociology, Anthropology, and Criminology, coordinated through the Department of History and Philosophy. Students in the program take courses in at least three of the five departments.

Because the master of arts in social science is interdisciplinary and does not require heavy specialization, it is responsive to individual interests and curricular needs. The program can offer greater expertise to social studies teachers in the elementary and secondary schools. Students with career interests in business or government service can acquire the deeper knowledge and broader perspective that stem from graduate work in social science. Beyond career or professional considerations, the program offers a fuller understanding of the social, cultural, political, economic, and geographic factors that have shaped the past and present human experience.

Admission Requirements

In addition to meeting The Graduate School admission requirements, the applicant must present a minimum of 30 semester hours of undergraduate courses in social science, with a grade point average of at least 2.5 in all undergraduate courses. Two letters of recommendation from former instructors and/or employers must also be submitted.

For those students who show promise, non-degree admission (status I: academic deficiencies) may be granted to those students not meeting the above GPA requirements. (See Non-Degree Admission Status.) Students who are admitted under non-degree admission must maintain a "B" average to be granted degree admission. A minimum of nine and a maximum of 12 credit hours earned as a non-degree admittee may be applied toward the M.A. degree upon recommendation of the departmental coordinator of advising.

Program Description

The master of arts in social science is awarded upon satisfactory completion of at least 30 semester hours of credit. This may include up to nine hours in approved upper division undergraduate courses. The courses must be distributed as follows:

1. A concentration of 12 semester hours in one of the following disciplines: economics, geography (from those geography courses classed as social science), history, political science (one course from each of three groups, as specified by the department) or sociology/anthropology. At least six of these hours must be in 500- or 600- level courses.
2. Twelve semester hours to be selected from at least two of the disciplines other than the field of concentration.

3. Six elective semester hours of graduate work. The elective hours may be social sciences or any other graduate courses offered by the University.

Advising

In addition to the specific requirements mentioned above, it should be noted that degree candidates must satisfy all of the general requirements of The Graduate School.

Newly admitted students should arrange an early conference with the graduate adviser, in order to plan their programs in detail.

All courses elections must be approved by the graduate adviser prior to registration each semester.

GRADUATE CERTIFICATION AND ADVANCED GRADUATE CERTIFICATE PROGRAMS IN STATE AND LOCAL HISTORY

Program Objectives

These certificate programs offer students a concentrated exposure to the methods, techniques, and materials of state and local history. The required courses provide a solid grounding in the skills of historical research and analysis. Through the elective courses, students will gain familiarity with ethnic and minority groups, political, labor and urban issues, and the interrelationships among economic, social, and political developments. Students who elect a local history internship will be able to apply their knowledge in a carefully supervised work setting.

By investigating events, individuals, groups, and movements at the state and local level, the programs provide students with specific illustrations and in-depth understandings of the major trends in United States history. Because Michigan's long and rich history incorporates significant events from the time of colonial rivalries through the present era of technological change, it provides an eminently suitable focus for such study.

The programs are intended to benefit individuals involved in a variety of public and private agencies or organizations. Elementary and secondary teachers may gain general understandings and develop specifically classroom applicable materials and insights, persons doing historical research, writing, and analysis may develop and refine those skills, and workers in community history or local museum settings may enlarge their specific knowledge and increase their awareness of the larger state and national contexts affecting local developments.

Admission Requirements

Graduate Certificate Program

1. Students must hold a bachelor's degree and meet The Graduate School requirement of a 2.5 GPA for admission.

2. Students must have completed 12 hours of undergraduate courses in history, with at least 6 of those hours in U.S. history.

Advanced Graduate Certificate Program

1. Students must hold a graduate degree and meet The Graduate School requirements for admission. Alternative admission is not allowed.
2. Students must have completed 12 hours of course work in history at the undergraduate or graduate level, with at least 6 of those hours in U.S. History.

Program Description

1. Each program shall consist of at least 15 hours of course work selected from the following list. No more than one 400-level course may be counted on a graduate certificate program. No 400-level courses may be applied to the advanced graduate certificate program.

HIS 505 Historical Method
HIS 533 Studies and Techniques in Local History

Electives

HIS 463 United States Labor History
HIS 530 Urban Communities in U.S. History
HIS 531 Studies in Black History
HIS 532 Studies in U.S. Indian History
HIS 534 Social and Political History of Michigan
HIS 535 Studies in the History of the Family in the United States
HIS 684 Workshop in Michigan History
HIS 689 Local History Internship
HIS 697-699 Independent Study

2. A minimum grade point average of 3.0 (B) must be achieved to obtain either the graduate certificate or the advanced graduate certificate.
3. The graduate certificate or advanced graduate certificate program must be completed within three years from the date of initial enrollment.

NOTE: Electives from the historic preservation program (GHP prefix) may be applied to a certificate program in state and local history with the approval of the history graduate adviser; for listing of these courses see Geography and Geology entry in the current graduate catalog.

HISTORY COURSES

Graduate courses (open to candidates for the M.A. in history or social science and to students from other disciplines who wish to take cognate hours in history).

AREA 1: UNITED STATES

HIS 530 Urban Communities in U.S. History. Three sem hours
A study of the economic, spatial, physical, social, and political structure and development of urban communities in the U.S. from the pre-industrial era to the present.

HIS 531 Studies in Black History. Three sem hours
Selected major developments in the history of black Americans from 1619 to the present.

HIS 532 Studies in U.S. Indian History. Three sem hours
A critical study of the current scholarship in selected chronological topics and work with the primary sources available on campus in United States Indian history.
Prereq: Either one U.S. history survey course, HIS 305 History of Indians in the United States, or permission of the instructor.

HIS 533 Studies and Techniques in Local History. Three sem hours
(Formerly Studies in Michigan History)
Topics drawn primarily from the history of southeastern Michigan and the surrounding areas will be used to illustrate the nature of local history, the sources that can be used in its study and the ways in which this study can provide insight into developments of greater scope.
Prereq: HIS 505 Historical Method or departmental permission.

HIS 534 Social and Political History of Michigan. Three sem hours
History of Michigan's development dating from the French period emphasizing settlement patterns, migration, immigration, and ethnic groupings. Involves broad readings from sources placing Michigan within context of U.S. development.
Prereq: One course in U.S. history or departmental permission.

HIS 535 Studies in the History of the Family in the United States. Two sem hours
The study of a significant issue or problem in the history of the family in the United States. The topic will vary from semester to semester.

HIS 538 Studies in Colonial American History. Two sem hours
Colonial American political, economic and social institutions; current scholarship and interpretation.
Prereq: HIS 123 American History to 1877 or departmental permission.

HIS 541 The United States, 1825-1860: Ferment and Reform. Two sem hours
An intensive study of the reform movements of the era. Special emphasis is given to women, utopianism, antislavery, immigration, education, temperance, religion and the asylum.
Prereq: HIS 123 U.S. History to 1877 or departmental permission.

HIS 583 Studies in the Civil War and Reconstruction. Three sem hours
Major problems of interpretation in the period from 1850 to 1877.

HIS 584 Studies in the Gilded Age. Two sem hours
The United States moving into a modern phase after the Civil War, leaving behind the old frontier and the blacksmith economy to enter an era characterized by factories, large cities, a race for colonies and socio-political unrest.

HIS 585 Studies in 20th Century U.S. History. Two sem hours
Study of selected topics in the history of the United States from 1900 to the present. Topics may vary from semester to semester.
Prereq: One course in U.S. history or departmental permission.

HIS 586 United States in World Politics. Two sem hours
American foreign policy in the 20th century, the nation's transition to great-power status and its adjustment to the demands of that role.

HIS 684 Workshop in Michigan History. Three sem hours
Intensive program using area archives to develop materials for elementary and secondary classroom use. Emphasizes bibliographical development, museum sources, and designing a topical framework for teaching Michigan history.
Prereq: One course in U.S. history or departmental permission.

AREA 2: EUROPE

HIS 511 Studies in Ancient History. Two sem hours
Intensive study of selected topics in classical Greek and Roman history during the period 500 B.C.-A.D. 600.

HIS 514 Studies in Renaissance and Reformation History. Three sem hours
An examination of major Renaissance and Reformation issues and developments in their historical setting.
Prereq: HIS 330 Europe in the Renaissance and Reformation or departmental permission.

HIS 515 Studies in Medieval History. Three sem hours
Intensive study of selected topics in European history during the period 300-1300.

HIS 517 Historical Background of Modern Britain. Two sem hours
The history of Great Britain from 1815 to the present with primary emphasis on institutional development. Political, economic, social and imperial problems will be examined, and Great Britain's role in today's world will be assessed.

HIS 518 Studies in Recent German History. Two sem hours
World War I, the Weimar Republic, the rise of National Socialism and the National Socialist state, World War II, and contemporary Germany.
Prereq: HIS 338 German History Since 1815 or departmental permission.

HIS 520 French Revolution and Napoleon, 1774-1815. Three sem hours
A study of the French Revolution and its Napoleonic aftermath. Emphasis is placed upon an understanding of the revolutionary movement, interpretation, and significance for the future.
Prereq: HIS 427 Europe from Absolution to Revolution 1648-1815.

HIS 522 Studies in 20th-Century Europe. Three sem hours
Topics in 20th-century European history selected from the following examples: the World Wars, European communism, the fascist experience, the crisis of European democracies, the Cold War, political reconstruction and economic recovery, and post-war social and cultural change.

HIS 547 Nineteenth Century Ideological Background of the Russian Revolution. Three sem hours
Russian thought from the accession of Nicholas I (1825) until the Bolshevik revolution. Major themes to be treated are the Slavophiles and Westernizers, socialism, anarchism, nihilism, populism, liberalism, and conservatism.
Prereq: One course in modern European history or departmental permission.

HIS 548 History Travel-Study Tours. Two sem hours
Representative areas with significant historical background. *May be taken more than once, but only two hours of such credit may be applied toward any one degree program.*

HIS 550 Twentieth-Century Russia. Two sem hours
Political, diplomatic, social, and cultural developments in Russia from 1894 to the present.

AREA 3: OTHER WORLD AREAS

HIS 510 Studies in the History of Religion. Two sem hours
Broad topics in one or more religious traditions, usually Hinduism, Buddhism, Judaism, Christianity, or Islam. The current topic will be announced in the time schedule.
Prereq: One course in history, preferably history of religion, or departmental permission.

HIS 525 Technology, Social Change and the Role of Women. Three sem hours
This course will examine the nature and origins of technology, the influence of its historical development from classical to modern times on women in the United States and Europe, and problems stemming from current technological advance.

HIS 543 Nationalism and Modernization in the Middle East and North Africa. Three sem hours
The development of nationalism and modernization in the Middle East and North Africa from World War I to the present; political and social changes occurring in this developing area.
Prereq: HIS 341 Middle Eastern History, 1798 to Present, HIS 342 North Africa, 1798 to Present, or departmental permission.

HIS 554 Studies in Modern India. Three sem hours
The development of India from mid-19th-century to the post-independence period; major problems confronting contemporary India.
Prereq: HIS 375 Modern India or departmental permission.

HIS 555 Studies in Far Eastern History. Two sem hours
Study of selected eras and topics in Far Eastern History. The topic selected will be announced in the time schedule.
Prereq: One course in Far Eastern history or departmental permission.

HIS 560 Studies in Latin American History. Two sem hours

An intensive investigation of selected political, economic, social, and cultural topics in Latin American history. The specific topics and chronological coverage are announced in the class schedule.

Prereq: One course in Latin American history or departmental permission.

HIS 697, 698, 699 Independent Study. One, two and three sem hours

(Formerly HIS 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member. A maximum of six hours may be applied toward a degree program. A maximum of three hours may be taken in any one semester or session.

Prereq: Departmental permission.

SPECIAL COURSES**HIS 505 Historical Method. Three sem hours**

This course encompasses training in research strategies appropriate to a variety of historical resources as well as instruction in the skills necessary for communicating the results of such research. A workshop approach offers discrete units in library and archive investigation, demographic and cartographic techniques, and oral and local history, culminating in a research paper.

HIS 591, 592 Special Topics in History. Two or three sem hours (Formerly HIS 593, 594)

Subject matter will change from semester to semester. Course may be repeated for credit, up to a limit of six hours.

HIS 687 Cooperative Education in History. Three sem hours

Four to six months of full-time employment in a business or industry chosen to provide practical experience in the student's major field. The cooperative education program consists of one or two work experiences alternated with full-time attendance at the University. *Credit/no credit.*

Prereq: Approval by Cooperative Education Office and departmental permission.

HIS 688 Historiography. Two sem hours

A critical study of the writings, philosophy, and influence of major historians.

Prereq: Fifteen hours of graduate credit in history.

HIS 689 Local History Internship. Three sem hours

Supervised internship in local history, mutually agreeable to student, faculty adviser, and internship agency. Content varies with student needs and interests and available placement opportunities. *May not be repeated for credit.*

Prereq: Departmental permission.

HIS 690, 691, 692 Thesis. One, two and three sem hours

Intensive research into an historical problem and the preparation of a thesis consistent in substance and form with the standards of the historical profession. *Credit/no credit.*

Prereq: Departmental permission.

OTHER COURSES FOR CREDIT TOWARD THE MASTER'S DEGREE

Approved upper division 400-level undergraduate courses in history also may be taken for graduate credit and applied toward the degree programs in history and social science. *Note that a maximum of nine hours of such credit may be used in any one degree program.* For information about undergraduate courses that may be taken for graduate credit, please consult the coordinator of advising.

If you intend to enroll in an undergraduate course for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

MATHEMATICS

Don R. Lick
 Department Head
 601 Pray-Harold
 487-1444

Kenneth Shiskowski
 Coordinator of Advising
 614-R Pray-Harold
 487-1294

DEGREE PROGRAMS OFFERED

The Department of Mathematics offers a graduate program leading to the degree of master of arts in mathematics. The department also offers a new master of arts in mathematics with a concentration in computer science.

The Departments of Mathematics and Computer Science award several graduate assistantships each year. A graduate assistantship stipend ranges from \$1,200 to \$5,000. In addition, the University pays full tuition for up to 18 credit hours for each fiscal year of the assistantship, as well as registration, student government and health service fees. The total package approximates \$6,300, depending on whether you are a resident or non-resident of Michigan.

Graduate fellowships are also awarded to those qualified students with high grade point averages who are not receiving graduate assistantships.

Those students interested in applying for a graduate assistantship or fellowship should contact the mathematics department head or coordinator of advising.

MATHEMATICS PROGRAM

Objectives

1. To develop a greater competence in mathematics or related areas beyond that attained at the undergraduate level.
2. To improve pedagogical competence in the teaching of mathematics.
3. To provide preparation for further study of graduate work beyond the master's level in mathematics or mathematics education.
4. To strengthen the mathematical background of those who require analytical and quantitative skills in their profession.
5. To meet the needs of teachers continuing their education.
6. To provide opportunity for research in mathematics and mathematics education.

Admission Requirements

The requirements for admission to the master's degree program in mathematics are:

1. meet The Graduate School degree admission requirements;
2. possess a strong undergraduate major in mathematics comparable to that offered at Eastern Michigan University (approximately 30 credit hours with a grade point average of 2.75 in the mathematics courses.). Students without such a major may be admitted to the program after meeting requirements specified by the department.

Degree Requirements

The master of arts degree in mathematics requires a minimum of 30 graduate credit hours beyond the bachelor's degree to be distributed with the approval of the department as follows:

1. three required courses of basic mathematics;
 - MTH 411G Modern Algebra with Applications (3), or equivalent
 - MTH 416G Linear Algebra or equivalent (3)
 - MTH 420G Introduction to Analysis (3)*, or equivalent

Students with undergraduate credit in any or all of these courses will substitute approved mathematics electives for these hours.

2. A minimum total of five hours of electives from at least two of the following three groups:
 - (a) (Algebra) MTH 511 Linear Algebra (3)
MTH 518 Theory of Groups (3)
MTH 618 Theory of Fields (3)
 - (b) (Analysis) MTH 524 Complex Analysis (3)
MTH 526 Real Analysis (3)
 - (c) (Prob. & Stat.) MTH 571 Mathematical Statistics I:
Probability Theory (3)
MTH 573 Applied Statistics (2)
MTH 671 Mathematical Statistics II: Statistical Inference (3)

3. One of the following two options is required and to be selected by the student:
 - (a) Four hours of thesis research.

Additional thesis hours may be taken but will not replace the requirements of items 1, 2, 4 and 5 under this section. Before the start of their thesis research, students must submit to the department head, a request to form a thesis committee. The committee will be made up of three faculty members of the Mathematics Department. The chairperson, who will direct the research, is usually selected by the student and requires the approval of the department head. The chairperson, in consultation with the student, will then recommend for department head approval, the other two committee members. At the conclusion of their research,

students will submit to the department head the original thesis plus three copies written in a manner suitable for publication and approved by the thesis committee.

- (b) One or two hours in research study. Students who elect this option will, with the approval of the coordinator of advising, select a supervisor to direct the research study. A presentation is required at the conclusion of the course. The presentation, based on the research study, will be made to at least three departmental faculty members. A typed copy of the study written in good and acceptable form will be filed with the department.
- 4. Cognate hours may be taken with the approval of the adviser. Zero to six hours in such courses may be taken outside the Mathematics Department but must be in an area related to mathematics. The number of such hours permitted in the program will be based upon the student's background and need.
- 5. Additional electives will be taken to make up at least 30 graduate credit hours. Usually no more than six hours of electives may be taken in mathematics education courses. Thesis or research study hours in mathematics education are not to be counted as part of this six hour limitation. Approval by the student's adviser of each semester's courses is suggested prior to registration although not required.
- 6. Final recommendation for the degree by the coordinator of advising is required.

Students seeking a master of arts degree in mathematics and having an interest in computer science or applied mathematics should see the following master of arts degree in mathematics with a concentration in computer science.

* A total of nine hours of 400-level courses taken for graduate credit may be used on a graduate degree program.

MATHEMATICS PROGRAM WITH CONCENTRATION IN COMPUTER SCIENCE

Objectives

- 1. To develop a greater competence in mathematics and computer science beyond that attained at the undergraduate level.
- 2. To improve pedagogical competence in the teaching of both mathematics and computer science.
- 3. To provide preparation for further study of graduate work beyond the master's level in mathematics and/or computer science.
- 4. To strengthen the background of those who require analytical and quantitative skills in their profession related to mathematics and computer science.

- 5. To provide opportunity for research in mathematics and/or computer science.

Admission Requirements

The requirements for admission to the master's degree program in mathematics with a concentration in computer science are:

- 1. meet all Graduate School degree admission requirements;
- 2. possess the equivalent of at least a minor in both mathematics and computer science (approximately 20 credit hours in each subject) although a major in one or the other subject is preferred. Also, at least a grade point average of 2.75 is required in both mathematics and computer science course work. Students without such a background may be admitted to the program after meeting requirements specified by the two departments.

Degree Requirements

The master of arts in mathematics with a concentration in computer science requires a minimum of 34 graduate credit hours beyond the bachelor's degree to be distributed with the approval of both departments, as follows:

Mathematics Requirements

- 1. Three required courses of basic mathematics:
 MTH 411G Modern Algebra with Applications (3),
 or equivalent
 MTH 416G Linear Algebra or equivalent (3)
 MTH 420G Introduction to Analysis or equivalent (3)*

Students with undergraduate credit in any or all of these courses will substitute approved mathematics electives for these hours.

- 2. A minimum total of five hours of electives from at least two of the following three groups:
 - (a) (Algebra) MTH 511 Linear Algebra (3)
 MTH 518 Theory of Groups (3)
 MTH 618 Theory of Fields (3)
 - (b) (Analysis) MTH 524 Complex Analysis (3)
 MTH 526 Real Analysis (3)
 - (c) (Prob. & Stat.) MTH 571 Mathematical Statistics I: Probability Theory (3)
 MTH 573 Applied Statistics (2)
 MTH 671 Mathematical Statistics II: Statistical Inference (3)

- 3. A minimum of 17 graduate credit hours must be taken in mathematics, of which 11 must be at the 500-/600-level in mathematics. Due to this 11 hours credit requirement of 500-/600-level in mathematics, we point out that in requirement 1. above, and in

general, only six graduate credit hours of 400-level course work in mathematics may count toward this degree.

Computer Science Requirements

- The student must take either of the following:
 - CSC 530 Formal Methods in Software Development (3)
 - CSC 531 Automata, Computability and Formal Languages (3)
- The student must take at least one course from the following:
 - CSC 630 Advanced Compiler Construction (3)
 - CSC 632 Automated Reasoning (3)
 - CSC 633 Advanced Operating Systems (3)
 - CSC 635 Real Time Processing (3)
 - CSC 660 Software Engineering Practicum (3)
- A minimum of 15 graduate credit hours must be taken in computer science, of which 12 must be at the 500-/600-level. Due to this 12 credit hour requirement at the 500-/600-level in computer science, we point out that only three credit hours of 400-level course work in computer science may count toward this degree.*

* A total of nine hours of 400-level courses taken for graduate credit may be used on a graduate degree program.

General Requirements

- Two hours of research study in either mathematics or computer science are required. Students will, with the approval of the coordinators of advising, select a supervisor to direct the research study. A presentation is required at the conclusion of the course. The presentation, based on the research study, will be made to at least three departmental faculty members. A typed copy of the study written in good and acceptable form will be filed with the Mathematics Department. Students interested in a thesis option should see the coordinators of advising and requirement 3(a) of the regular mathematics program.
- Additional electives will be taken as needed to make up at least 34 graduate credit hours. Approval by the student's adviser of each semester's courses is suggested prior to registration, but not required.
- Final recommendation for the degree by the coordinators of advising is required.

MATHEMATICS COURSES

MTH 500 Modern Mathematics

Content, K-6.

Two sem hours

The modern mathematics required for teaching this subject in the elementary grades (K-6); set theory, logic, numeration systems, the real number system and geometry. *Not applicable to M.A. in mathematics program. Not open to students who have credit in MTH 501 New Topics in Modern Mathematics, K-8.*

MTH 501 New Topics in Modern

Mathematics, K-6.

Two sem hours

New topics in modern mathematics programs, the materials of various study groups, practical problems in teaching mathematics in grades K-8. *Not applicable to M.A. in mathematics program. Not open to students who have credit in MTH 500 Modern Mathematics Content, K-6.*

Prereq: Teaching experience or MTH 381 The Teaching of Mathematics, K-6 or departmental permission.

MTH 503 Arithmetic Methods.

Two sem hours

Current problems in teaching arithmetic. Evaluating pupil achievement; new topics. *Not applicable to M.A. in mathematics program.*

Prereq: Teaching experience or MTH 381 The Teaching of Mathematics, K-6 or departmental permission.

MTH 504 Mathematics and

Statistics for M.B.A.s

Three sem hours

An elementary course emphasizing an understanding of differential calculus and its use in optimization, and an understanding of basic probability and statistics. *Open to M.B.A. students only.*

Prereq: Two years of high school algebra, or MTH 104 Intermediate Algebra or equivalent.

MTH 506 Introduction to

Mathematical Logic.

Two sem hours

Propositional and first order predicate calculi and rules of deduction; application in mathematical systems and proofs.

Prereq: A minor in mathematics or departmental permission.

MTH 507 Theory of Numbers.

(Formerly MTH 516)

Three sem hours

Divisibility theory of integers, primes, theory of congruences, Fermat's Theorem, Wilson's Theorem, number theoretic functions, multiplicity, Mobius inversion formula, Euler's phi function, quadratic reciprocity.

Prereq: MTH 411 Modern Algebra with Applications or departmental permission.

MTH 508 Foundations of Mathematics. Two sem hours
 An introduction of axiomatic method, axiomatic set theory, transfinite arithmetic, logical paradoxes; their influence on modern conceptions of mathematics.
Prereq: A minor in mathematics or departmental permission.

MTH 511 Linear Algebra. (Formerly Linear Algebra I) Three sem hours
 Theory of a single linear transformation, canonical forms, inner product spaces.
Prereq: MTH 411 Modern Algebra with Applications and MTH 416 Linear Algebra or departmental permission.

MTH 518 Theory of Groups. Three sem hours
 Groups, subgroups and quotient groups, finitely generated abelian groups, Sylow theorems, further topics.
Prereq: MTH 411 Modern Algebra with Applications or departmental permission.

MTH 522 Fourier Analysis. Three sem hours
 An introduction to Fourier series and their application to the solution of boundary value problems in the partial differential equations of physics and engineering.
Prereq: MTH 322 Differential Equations and MTH 420 Introduction to Analysis or departmental permission.

MTH 524 Complex Analysis. Three sem hours
 Complex numbers, analytic functions, elementary complex functions and mappings, Cauchy's Theorem and Cauchy's integral formula, maximum modulus principle, power series and calculus of residues and further topics.
Prereq: MTH 420 Introduction to Analysis or MTH 526 Real Analysis or departmental permission.

MTH 526 Real Analysis. Three sem hours
 Topology of the real line, sequences and series, metric spaces, real-valued functions, functions of bounded variation, theory of differentiation and integration, introduction to Lebesgue integration.
Prereq: MTH 420 Introduction to Analysis or departmental permission.

MTH 537 Introduction to Numerical Analysis. Two sem hours
 Review of current computer language in use on campus, errors, evaluation of functions, root determination, numeric integration, interpolation, solution of ordinary differential equations and simultaneous linear equations. *Not open to students who have credit in MTH 436 Numerical Analysis.*
Prereq: A course in computer programming and MTH 223 Multivariable Calculus or departmental permission.

MTH 542 Non-Euclidean Geometry. Two sem hours
 Foundations of geometry and historical development. A study of hyperbolic and elliptic plane geometries. These compared with parabolic plane geometry.
Prereq: A minor in mathematics or departmental permission.

MTH 543 Analytic Projective Geometry. Two sem hours
 Projective geometry as defined on a vector coordinate space. The corresponding vector algebra is studied and then adapted to the affine plane and two of its subplanes; Euclidean and Space-Time.
Prereq: An undergraduate major in mathematics or departmental permission.

MTH 546 Graph Theory. Two sem hours
 A study of undirected and directed graphs and their structural properties including connectivity and traversability. Associated matrices, groups and relations and applications to networks.
Prereq: A minor in mathematics or departmental permission.

MTH 548 Introduction to Differential Geometry. Three sem hours
 Fundamental concepts of the theory of curves and surfaces in three-dimensional space. Applications.
Prereq: An undergraduate major in mathematics or departmental permission.

MTH 550 General Topology. (Formerly MTH 528) Three sem hours
 General theory of topological spaces, metric spaces, continuity, product and quotient spaces, separation axioms, compactness and connectedness.
Prereq: MTH 420 Introduction to Analysis or departmental permission.

MTH 560 Introduction to Optimization Theory. Three sem hours
 An introduction to various aspects of optimization theory including linear and non-linear programming, primal dual methods, calculus of variations, optimal control theory, sensitivity analysis, and numerical methods.
Prereq: An undergraduate major in mathematics or departmental permission.

MTH 571 Mathematical Statistics I: Probability Theory. Three sem hours
 Set theory, Borel sets, Sigma field of events, probability measures on a sigma field, axioms, finite and countable spaces, random variables and distributions, functions of random vectors, derived distributions, generating and characteristic functions, limit theorems, modes of convergence, law of large numbers.
Prereq: MTH 370 Probability and Statistics I and MTH 420 Introduction to Analysis or departmental permission.

MTH 573 Applied Statistics. Two sem hours
Point and interval estimation, hypothesis testing, sample mean and sample variance, analysis of variance, linear and non-linear regression, contingency tables, non-parametric methods, applications to the physical, biological and social sciences and to business and education.

Prereq: MTH 370 Probability and Statistics I, MTH 571 Mathematical Statistics I: Probability Theory or departmental permission.

MTH 575 Statistical Problems. Two sem hours
Probability densities, mathematical expectation, multivariate distribution theory, sampling distributions, point and interval estimations, test of hypotheses, an introduction to the analysis of variance and statistical decision problems. *Not open to students who have credit in MTH 471 Probability and Statistics II.*

Prereq: MTH 370 Probability and Statistics I, MTH 571 Mathematical Statistics I: Probability Theory or departmental permission.

MTH 581 Modern Mathematics Methods, K-6. Two sem hours
Elective techniques in presenting materials, planning class activities and creating good learning situations; current problems in a modern mathematics curriculum for grades K-6. *Not applicable to M.A. in mathematics program.*

Prereq: MTH 500 Modern Mathematics Content, K-6 or departmental permission.

MTH 582 Microcomputers for Educators. Two sem hours
Capabilities and applications of microcomputers in schools. Students will learn programming in the BASIC Language and will learn how microcomputers work. No microcomputer experience assumed. Intended for educators.

Prereq: Teaching experience or departmental permission.

MTH 584 Middle School Mathematics, Methods and Content. Three sem hours
Middle school mathematical content and contemporary ways of using materials and strategies to present the content. Topics include algebra, geometry, probability and statistics, number theory, logic, and other general mathematics notions.

Prereq: Teaching experience in junior or middle school mathematics or 15 hours of undergraduate credit in mathematics or departmental permission.

MTH 585 Modern Mathematics Methods, Senior High School. Two sem hours
For students lacking an undergraduate high school methods course in mathematics. *Not applicable to M.A. in mathematics program. Not open to students who*

have credit in MTH 306 Teaching of High School Mathematics. Offered as needed.

Prereq: A minor in mathematics or departmental permission.

MTH 587 Enriching Introduction in High School Mathematics. Two sem hours
New teaching aids and supplementary reading materials; subject matter usually not developed in standard texts (e.g., linear programming, principles of computers and advanced geometric constructions). Topics for accelerated high school classes.

Prereq: Teaching experience in high school mathematics or departmental permission.

MTH 588 High School Mathematics, Methods and Content. Three sem hours
Presents information and materials to broaden and deepen a secondary teacher's background in teaching mathematics. Topics include general mathematics, algebra, geometry, trigonometry, and senior mathematics. Applications, strategies of presentation, and teaching aids are discussed.

Prereq: A minor in mathematics or departmental permission.

MTH 589 Geometry for Secondary Teachers. Two sem hours
(Formerly MTH 547)

Presents information and materials to broaden and deepen a secondary teacher's background in teaching of geometry. Foundations of geometry, modern geometry, non-Euclidean geometries and a little topology are studied.

Prereq: Departmental permission.

MTH 590, 591, 592 Special Topics in Mathematics. One, two and three sem hours

A graduate-level course in a specific area of mathematics, to be determined by the field of specialization of the instructor and the interest of the students.

Prereq: Departmental permission.

MTH 595 Workshop. Two sem hours
Usually not applicable to M.A. in mathematics program.

Prereq: Departmental permission.

MTH 601 Teaching Junior College Mathematics. Two sem hours
(Formerly MTH 681)

Current problems in a junior college mathematics program. The role of algebra and trigonometry, elementary functions, analytic geometry, the calculus and linear algebra; content and techniques of instruction. CUPM recommendations for a college program. (Not offered currently.)

Prereq: Departmental permission.

MTH 610 Rings and Ideals. Two sem hours
Polynomial rings, ideals and homomorphisms, imbedding theorems, prime ideals, the radical, minimal and maximal prime ideals belonging to an ideal. (Not offered currently.)

Prereq: Any course in abstract algebra or departmental permission.

MTH 618 Theory of Fields. Three sem hours
(Formerly MTH 514/614)

Finite fields, prime fields and their extensions, normal extensions and Galois groups, splitting fields, separability, irreducibility, ruler and compass constructions, unsolvability of the general quintic equation.

Prereq: MTH 518 Theory of Groups or departmental permission.

MTH 648 An Introduction to Differentiable Manifolds and Riemannian Geometry. Three sem hours

Metric spaces, differentiable manifolds from both a coordinate (tensorial) and a coordinate-free (Linear Algebra) point of view. Basic Riemannian geometry including metric tensors, connections, parallelism, geodesics and curvature.

Prereq: MTH 416 Linear Algebra and MTH 548 Introduction to Differential Geometry or departmental permission.

MTH 671 Mathematical Statistics II: Statistical Inference. Three sem hours

Distributions, exact sampling distributions, properties of estimators, MLE, BLUE, Bayes and Min-Max estimation, Rao-Blackwell Theorem, completeness, minimal sufficiency, optimal tests, Neyman-Pearson Lemma, likelihood ratio tests, chi-square tests.

Prereq: MTH 416 Linear Algebra and MTH 571 Mathematical Statistics I: Probability Theory or departmental permission.

MTH 679, 680, 681 Special Topics in Mathematics. One, two and three sem hours
(Formerly MTH 591)

A graduate level course in a specific area of mathematics, to be determined by the field of specialization of the instructor and the interest of the students.

Prereq: Completion of a minimum of 10 hours of graduate credit in mathematics and graduate GPA in mathematics of 3.3 or above and departmental permission.

MTH 687 Cooperative Education in Mathematics. Three sem hours

Practical experience in an industrial setting consisting of a supervised placement involving extensive use of mathematics. The student will be required to submit a plan outlining the academic benefits, and a summary of the experience upon conclusion. *Credit/no credit.*

Prereq: Departmental permission.

MTH 690, 691, 692 Research

Study. One, two and three sem hours

Research in areas of mathematics or mathematics education under guided direction. Thesis or final paper dependent upon program option is required at the conclusion of the research work.

Prereq: Departmental permission.

MTH 697, 698, 699 Independent

Study. One, two and three sem hours

(Formerly MTH 597, 598, 599)

A report on an approved subject in the field of mathematics, the history of mathematics or the teaching of mathematics, under the guidance of faculty member of the Mathematics Department.

Prereq: Completion of a minimum of 10 hours of graduate credit in mathematics and graduate GPA in mathematics of 3.3 or above and departmental permission.

OTHER COURSES FOR GRADUATE CREDIT

The following courses may also be elected for graduate credit; course descriptions may be found in the undergraduate catalog. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.* Information about courses in mathematics not listed here may be obtained from the coordinator of advising, Kenneth Shiskowski.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- MTH 400 History of Mathematics (3)
- MTH 403 Current Research in Elementary School Mathematics (3)
- MTH 406 Introduction to Computability (3)
- MTH 411 Modern Algebra with Applications (3)
- MTH 416 Linear Algebra (3)
- MTH 418 Applied Linear Algebra (3)
- MTH 419 Mathematical Modeling II (3)
- MTH 420 Introduction to Analysis (3)
- MTH 424 Introduction to Complex Analysis (3)
- MTH 425 Mathematics for Scientists (3)
- MTH 426 Differential Equations II (3)
- MTH 436 Numerical Analysis (3)
- MTH 471 Probability and Statistics II (3)
- MTH 475 Applied Combinatorics (3)
- MTH 477, 478, 479 Special Topics in Mathematics (1,2,3)

MUSIC

James B. Hause
 Department Head
 N101 Alexander Music Building
 487-0244

Mary D. Teal
 Coordinator of Advising
 N-101 Alexander Music Building
 487-1044

Concentrations leading to the master of arts degree are offered in music education, music literature, music theory-literature, performance, piano pedagogy and choral music. Programs are flexibly designed to meet varying student needs. The primary objectives are to improve performance and musicianship, teaching skills, and analytical and research skills.

Programs consist of 10 hours of foundation courses in research techniques, music theory and literature; 14 hours of concentration in the student's field of interest; and six hours of cognate courses outside the Department of Music.

A final recital, thesis, composition with supporting paper, or special project is required in each degree program.

All music curricula are accredited by the National Association of Schools of Music.

ADMISSION

Application for admission should be made to The Graduate School, where undergraduate transcripts are evaluated. Transcripts should be forwarded to The Graduate School at the time of application. In addition, students wishing to major in performance should send a tape to the Department of Music or write for information on auditions. Admission to a graduate program in the Department of Music is granted to students who meet the requirements of both The Graduate School of Eastern Michigan University and the Department of Music. In addition to Graduate School requirements for degree admission, the department requires the applicant to have an undergraduate degree in music or its equivalent. Upon general admission to the department, additional auditions are necessary for applied music study or acceptance in a performance concentration.

Students who meet Graduate School requirements for admission but who do not meet all departmental requirements may be granted conditional admission. Conditions that must be met before degree admission is granted include: (a) completion of all graduate placement examinations and auditions; (b) completion of all deficiency courses and requirements; (c) completion of MUS 601 Introduction to Graduate Studies; and (d) completion of at least six credit hours of graduate study in music at Eastern Michigan University with a cumulative grade point average of 3.0 ("B") or better.

For degree admission, an international student must present a score of 90 on the Michigan English Language Assessment Battery (MELAB)/550 on the TOEFL (Test of English as a Foreign Language). A conditionally admitted international student must present a score of 85-90 on the MELAB/500-550 on the TOEFL.

Upon admission to the Department of Music, each student is assigned an adviser who assists in planning a curriculum based on student needs and future plans. Placement examinations in theory, literature, history, and performance are given each semester and students are expected to complete these tests before decisions on course elections are made. The results of the placement tests are used by advisers in determining the course needs of students. Students with deficiencies may be required to take remedial courses without graduate credit.

AUDITIONS AND PLACEMENT TESTS

Placement tests for admission to the graduate music program will be held in 1990-1991 on the following dates:

Fall Semester 1991
 July 30, 1991

Winter Semester 1992
 November 12, 1991

Summer Session 1992
 May 5, 1992

Fall Semester 1992
 August 4, 1992

Winter Semester 1993
 November 10, 1992

Summer Session 1993
 May 4, 1993

Auditions are arranged with the adviser and area chairman.

In addition to regular tuition, students accepted for private music lessons will be assessed an applied music fee described under the section on tuition and fees.

COURSES OPEN TO GRADUATE MUSIC MAJORS

MUS 601 Introduction to Graduate Studies. Two sem hours
An introductory course in scholarly research and writing which includes library orientation for the music researcher, basic types of music research, evaluation of basic source materials for music research, style for writing and documentation of scholarly research, organization of a bibliography.

MUS 617 Music Composition II. Two sem hours
Original composition based upon techniques of the 20th century; composition of works of moderate length. *May be repeated for credit.*
Prereq: MUS 517 Music Composition I or equivalent.

MUS 618 Music Composition III. Two sem hours
Original composition in larger forms with the intent of performance. *May be repeated for credit.*
Prereq: MUS 517 Music Composition I and MUS 617 Music Composition II or equivalent.

MUS 642 History and Philosophy of Music Education. Two sem hours
The study of the development of music education in the United States and the influence of philosophy upon development.
Prereq: Departmental permission.

MUS 651 The General Music Class. Two sem hours
An exploration of the place of music in the education of adolescents, including techniques and materials utilized in the general music class of the middle and junior high schools. Discussion of current trends in general education that affect the structure and place of the general music class in the secondary school curriculum.

MUS 652 Advanced Techniques and Materials for Developing the Vocal Music Program in the Elementary School. Two sem hours
An exploration of the latest trends, techniques, and materials utilized in elementary school vocal and general music classes. Discussion of current practices in general education that affect the music program in the elementary school.

MUS 653 Advanced Techniques and Materials for Developing the Secondary School Vocal Program. Two sem hours
An exploration of the latest trends, techniques, and materials utilized in middle, junior, and senior high school vocal music. Both performance and non-performance types of classes are covered. Discussion of current practices in general education that affect the music program in the secondary schools.

MUS 654 Advanced Techniques and Materials for Developing the Secondary School Band Program. Two sem hours
Current trends in techniques and materials for the high school band.

MUS 655 Advanced Techniques and Materials for Orchestras in the Secondary Schools Two sem hours
Selected problems and their solution pertaining to the improvement of the musical performance of the school orchestra. Major emphasis is placed on the string section and its problems.

MUS 658 Administration and Supervision in Music Education. Two sem hours
An examination of the purposes and function of school music administration. Emphasis is placed on the role of the music supervisor as an educational leader in the areas of curriculum, business, and personnel.

MUS 691 Thesis. Two sem hours
A substantial and original undertaking in scholarly research designed to reflect, focus, and deepen the student's individual interests and to provide a culminating work leading to a master's degree in music.
Prereq: Departmental permission.

MUS 692 Final Project. Two sem hours
A creative, analytical or pragmatic project of a substantial and original nature designed to reflect the student's individual interests and to serve as a culminating work leading to a master's degree in music. Final projects may be of several types such as lecture-recital, original composition and analytical paper, annotated bibliography or discography, survey, unit of study, course outline.
Prereq: Departmental permission.

MUS 694 Seminar. Two sem hours
Topics may be in some area of music education, theory, literature, history, musicology or performance. May serve for the development of research proposals, literature reviews, research techniques, or other similar purposes. *May be repeated for credit with permission of adviser.*
Prereq: Departmental permission.

MUS 697, 698 Independent Study. One and two sem hours
An intensive study of a program or group of problems under the direction of a University faculty member. *May be repeated for credit.*
Prereq: Departmental permission.

Performance Courses

AMU 601, 602, 603, 604 Applied Music—Performance. One, two, three and four sem hours
Open to performance majors and graduate students who completed an undergraduate concentration in performance. *May be repeated for credit.*
Prereq: Audition.

MUS 687 Graduate Recital. Two sem hours
Required in partial fulfillment of the master of arts degree for those students concentrating in performance and for those students who qualify for and select recital as a culminating option. *Students must be enrolled in AMU 601/602/603/604 concurrently.*

COURSES OPEN TO GRADUATE STUDENTS AND QUALIFIED SENIORS

MUS 504 America's Music. Two sem hours
The diversified styles of music, made and continuously used by the people of the United States in terms of our historical cultural traditions.
Prereq: Music major or departmental permission.

MUS 510 Masterpieces of Music. Two sem hours
Promotes interest, enjoyment, and understanding of some of the important works of great composers; importance of music as a factor in human experience and as a mode of thought. *Not open to students who have a major or minor in music.*

MUS 511 Survey of Harmonic Techniques. Two sem hours
Compositional and harmonic techniques and practices of major composers of the 18th, 19th and 20th centuries.
Prereq: MUS 202 Music Theory-Literature IV or equivalent.

MUS 513 Form and Analysis. Two sem hours
Structural principles and techniques through analysis of representative works of 18th, 19th, and 20th centuries.
Prereq: MUS 202 Music Theory-Literature IV or equivalent.

MUS 514 Sixteenth Century Counterpoint. Two sem hours
Polyphonic techniques and forms based upon stylistic principles of the 16th century.
Prereq: MUS 202 Music Theory-Literature IV or equivalent.

MUS 517 Music Composition I. Two sem hours
The creative process in music through analysis of traditional and new music; original composition in small forms illustrating various techniques and media. *May be repeated for credit.*
Prereq: Departmental permission.

MUS 531 Renaissance Music. Two sem hours
Selected works representing the forms, styles, and idioms of the 15th and 16th centuries.
Prereq: Music major or departmental permission.

MUS 532 Baroque Music. Two sem hours
Selected works representing some of the styles and idioms of the 18th century, and of the early and mid-18th century (Bach, Handel).
Prereq: Music major or departmental permission.

MUS 533 Music in the Classic Era. Two sem hours
The development of musical style and form in the classical era, principally in the works of Haydn, Mozart and Beethoven.
Prereq: Music major or departmental permission.

MUS 534 Music in the Romantic Era. Two sem hours
The development of musical style and form in the romantic era. Intensive study of selected compositions.
Prereq: Music major or departmental permission.

MUS 535 Music of the 20th Century. Two sem hours
Study of major works, composers, and aesthetic systems of 20th century music. Selected works to be announced each time the course is offered.
Prereq: Music major or departmental permission.

MUS 536 World Music I. Two sem hours
The study of music literature from a variety of times and cultures. Discussion of experimentation and improvisation characteristic of soloists and small groups in the history of world music. To include solo song, chamber music, madrigal, piano, lute, sitar, and other non-Western music. *Open to majors and non-majors.*

MUS 537 World Music II. Two sem hours
A concentration of the study of music from a variety of times and cultures with emphasis on large groups. To include instrumental ensembles, orchestra, band, choir, composite groups, theatrical, and festival music. Discussion of the culmination of style characteristics of large groups in the history of world music. *Open to majors and non-majors.*

MUS 538 The New Music. Two sem hours
Examination of the new music; its sound, sources, structures, notation, performance and perception. Listening, study, discussion and performance, covering vocal, instrumental and electronic techniques.
Prereq: Music major or departmental permission.

MUS 540 The Orchestra and Its**Literature. Two sem hours**

A chronological survey of music for orchestra from its inception in the 18th century to the present. It will include overtures, suites, concertos, symphonies, tone poems, pieces for chorus and soloists with orchestras, and other miscellaneous compositions. Emphasis will be on listening, stylistic features, and historical background.

Prereq: Music major or departmental permission.

MUS 551 Vocal and Instrumental**Accompanying. Two sem hours**

Provides pianists or organists with experience in accompanying singers and instrumentalists through acquisition of basic skills and repertoire. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 560 Studies in Pedagogy. Two sem hours

Topics may be selected from the following: piano, organ, voice, vocal diction, brass, woodwind, strings, theory, literature, percussion, or similar subjects. Topics to be offered will be announced in the schedule of classes. *May be repeated for credit with permission of adviser.*

MUS 561 Studies in Literature. Two sem hours

Topics to be selected from the following: piano, organ, vocal repertoire, band, orchestra, choir, solo song, chamber ensemble, opera, or similar topics. Topics to be offered will be announced in the schedule of classes. *May be repeated for credit with permission of adviser.*

MUS 577 Advanced Instrumental**Conducting. Two sem hours**

Interpretative factors and more subtle baton techniques; greater understanding of style and form through analysis of representative scores.

Prereq: MUS 327 Instrumental Conducting or equivalent.

MUS 578 Advanced Choral**Conducting. Two sem hours**

Choral conducting techniques, styles and materials, organization, balance of choral groups, score reading, control of voices for blending flexibility, vocal poise, and musical discipline for both church and school singing groups.

Prereq: MUS 328 Choral Conducting or equivalent.

MUS 590, 591, 592 Special Topics**in Music. One, two and three sem hours**

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may select this course several times as long as different topics are studied. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental and adviser approval.

MUS 595 Workshop in Music. Two sem hours

Topic to be announced in the schedule of classes. Topics usually will relate to some aspect of music education or performance such as Choral Workshop, String Workshop, Band Workshop, Keyboard Workshop, General Music Workshop, Chamber Music Workshop, or some similar topic. *May be repeated for credit.*

Prereq: Departmental permission.

Performance Courses**MUS 546 Collegium Musicum. One sem hour**

Various ensembles of soloists—instruments, vocal and mixed. Opportunity to perform old and new music infrequently heard. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 547 Collegium Musicum. Two sem hours

Various ensembles of soloists—instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. Credit beyond one semester hour is earned through individual projects and research. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 550 Ensemble. One sem hour

Participation in any regular departmental ensemble as a means of expanding knowledge of literature, observing techniques of conducting and increasing efficiency in principal or secondary performance areas. *May be repeated for credit. Open to qualified students upon satisfactory audition.*

Prereq: Departmental permission.

AMU 501, 502 Applied Music—Secondary**Performance. One and two sem hours**

Open to majors and non-majors. May be repeated for credit.

Prereq: Audition.

PHYSICS AND ASTRONOMY

Daniel Trochet
 Department Head
 303 Strong Hall
 487-4144

Program Advisers:

Physics:
 Edward Gabl
 Diane Jacobs
 James Porter
 Richard Roth
 Natthi Sharma
 Marshall Thomsen
 303 Strong Hall
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Physics Education:

Daniel Trochet
 303 Strong Hall
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General Science:

Jon K. Wooley
 303 Strong Hall
 487-4144

The Department of Physics and Astronomy offers three programs leading to the master of science degree. The physics program is for those interested in continuing their work at the Ph.D. level and research. The physics education program is for high school physics teachers who wish to enhance their physics background or prepare for further graduate study. The general science program is interdisciplinary in nature and is intended for junior high school teachers who are looking for a program to strengthen and broaden their science background.

Each program requires a minimum of 30 semester hours of approved graduate-level course work. No more than 9 semester hours of senior-level undergraduate courses approved for graduate credit may be used on any program. Each student's program may include up to 6 hours of course work in approved cognate areas. Upon admission to a program, the student will arrange a program of study with his/her assigned adviser.

PHYSICS PROGRAM REQUIREMENTS

This program prepares students in the area of traditional physics research. Graduates from this program are well prepared for further advanced study at the Ph.D. level or for a teaching career at the junior college or community college level.

Those entering this program should have the equivalent of an undergraduate major in physics with a strong background in mathematics. Students who do not meet these requirements may be granted a condi-

tional admission which requires the completion of additional undergraduate course work in physics and/or mathematics.

Graduation requirements include successful completion of 30 semester hours of approved graduate credit, satisfactory performance on a comprehensive written/oral examination, and the successful completion of a research problem culminating in a written thesis or report.

Further information may be obtained from Dr. Richard Roth, graduate adviser in the Department of Physics and Astronomy.

PHYSICS EDUCATION PROGRAM REQUIREMENTS

This program is designed to improve the preparation of high school physics teachers. Graduates also are well qualified for further advanced study at the Ph.D. level in such areas as physics education or science education.

Those entering the program must have at least the equivalent of an undergraduate minor in physics with a background in mathematics through multivariable calculus. Students who do not meet these requirements may be granted conditional admission requiring the completion of additional undergraduate course work in physics and/or mathematics. Admission is restricted to either in-service teachers or to those intending to enter the teaching profession.

Graduation requirements include successful completion of 30 semester hours of approved graduate credit, satisfactory performance on a comprehensive oral examination, and the successful completion of an essay in physics, the history of physics, or the teaching of physics.

Further information may be obtained from Dr. Daniel Trochet, graduate adviser in the Department of Physics and Astronomy.

GENERAL SCIENCE PROGRAM REQUIREMENTS

This program is interdisciplinary in nature and covers the science areas of astronomy, biology, chemistry, earth science, and physics. It is designed for junior high school teachers who wish to upgrade and update their science content and methodology as they prepare for leadership roles in science education.

Prerequisites for admission to the program include a minimum of 30 semester hours of course work in science with basic course work in four of the five science areas listed above. At least a minor in one of the above listed science areas or mathematics is required. Mathematics preparation through the level of college algebra and trigonometry is mandatory. Students who do not meet these requirements may be granted conditional admission requiring the completion of additional undergraduate course work in science and/or mathematics. Admission is re-

stricted to those who are either teaching or planning to teach.

Graduation requirements include the completion of 30 semester hours of approved course work. All students must take at least 4 but not more than 6 semester hours of course work related to the methods of teaching science at the secondary level. There is no essay, report or thesis requirement for this program.

Further information may be obtained by contacting Dr. Jon K. Wooley, graduate adviser, Department of Physics and Astronomy.

PHYSICS COURSES

PHY 505 Physical Science for Elementary

Teachers I. Two sem hours

A course which emphasizes both the content and the processes of the physical sciences. Discussions and demonstrations leading to an understanding of basic concepts through the processes of discovery and inquiry. *Prereq: Two courses in physical science (such as PHY 100 Science for Elementary Teachers or CHM 101 Science for Elementary Teachers).*

PHY 506 Physical Science for Elementary

Teachers II. Two sem hours

A course that emphasizes both the content and the processes of the physical sciences. Discussions and demonstrations leading to an understanding of basic concepts through the processes of discovery and inquiry. *Prereq: PHY 505 Physical Science for Elementary Teachers I.*

PHY 511 Mechanics, Sound and Heat for

Teachers. Three sem hours

A study of motion, forces, heat, and sound for teachers of general science who have had little or no previous experience with physics.

PHY 512 Light, Electricity and Magnetism for

Teachers. Three sem hours

A study of light, electricity, and magnetism for teachers of general science who have little previous experience with physics.

Prereq: PHY 511 Mechanics, Sound and Heat for Teachers or equivalent; may be taken concurrently.

PHY 514 Instrumentation for

Teachers. Three sem hours

This course treats the fundamentals of electrical instruments and the care and use of those instruments commonly encountered in secondary school science and in general science courses.

PHY 515 Atomic and Nuclear

Physics I. Two sem hours

A study of relativity, the quantum properties of waves and the wave properties of particles, the Bohr atom, atomic spectra, and wave machines. *Not open to students with credit in PHY 370 Introduction to Modern Physics.*

Prereq: One year college physics.

PHY 516 Atomic and Nuclear

Physics II. Two sem hours

A study of nuclear structure, radioactive decay, detection and measurement of nuclear radiation, nuclear reactions, fission, fusion, and elementary particles.

Prereq: PHY 515 Atomic and Nuclear Physics I.

PHY 520 Teaching of Physical

Science. Two sem hours

Scientific attitudes for use with elementary pupils, the scientific method, a selected group of physical principles, simple experiments which may be used in the elementary school.

PHY 527 Introduction to the Use of

Radioisotopes. Two sem hours

Properties, measurement, safe handling and dosage of radioisotopes. *Not open to students who have credit in PHY 471 Nuclear Physics.*

Prereq: PHY 221 Mechanics, Sound and Heat and PHY 222 Electricity and Light or equivalent.

PHY 536 Theoretical Acoustics.

Four sem hours

Waves in bars, membranes and plates, as well as in ducts and acoustic horns are considered. Also treated are acoustic radiation from a piston in a sphere and sound waves in non-rectangular rooms and in rooms with absorption.

Prereq: PHY 431 Intermediate Mechanics II, PHY 436 Vibration and Sound and PHY 481 Mathematical Physics; or departmental permission.

PHY 540 The History of Physics and

Astronomy. Two sem hours

A course designed to give students an understanding of the contributions made by selected scientists to the development of physics and astronomy and the relationship of these ideas to the period in which the scientists lived.

Prereq: Three courses in physics and/or astronomy (one may be taken concurrently).

PHY 541 Modern Optics.

Three sem hours

(Formerly PHY 441)

A course dealing with those aspects of physical and quantum optics that are essential for the quantitative description of modern optical technology such as lasers and holography. Emphasis is on physical optics. Topics covered include application of Fourier Transform to diffraction holography, Fresnel reflection coefficients,

propagation of light in crystals, coherence, and partial coherence, and lasers.

Prereq: PHY 440 Optics and MTH 223 Multivariable Calculus.

**PHY 576 Solid State Physics. Three sem hours
(Formerly PHY 476)**

An introduction to the principles and phenomena associated with the solid state: crystal structure, lattice waves, free electron model, band theory, properties of solids, imperfections.

Prereq: PHY 450 Electricity and Magnetism and PHY 475 Introduction to Quantum Mechanics.

PHY 579 Signal Processing. Three sem hours

The student will gain an understanding of data collection and analysis techniques with emphasis on acoustical and random measurements. Instruments for performing dual channel fast Fourier transforms and acoustic time-delay spectroscopy will be available for student projects.

Prereq: PHY 436 Vibration and Sound, one course in probability and statistics, or departmental permission.

**PHY 587 Cooperative Education in
Physics. Three sem hours**

The course involves a cooperative education experience for the equivalent of one semester full time. A written report is required at the end of the employment. *Credit/ no credit. Credit on a graduate program is subject to departmental approval.*

Prereq: Departmental permission.

**PHY 590, 591, 592 Special Topics in
Physics. One, two and three sem hours
(Formerly PHY 537, 594)**

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. *Not more than six hours of special topics may be used on a degree program.*

**PHY 594, 595, 596 Workshop In
Physics. One, two and three sem hours**

Laboratory and/or field experience guided toward problems and new curricula in physics and physical science.

Prereq: Departmental permission.

**PHY 622 New Approaches to the Teaching of Science
in the Junior High School I. Two sem hours
(Formerly PHY 522)**

Emphasis will be placed on the philosophy, content, teaching strategies, and implementation of newer science curriculum materials designed for use in the junior high or middle school. Needed subject matter background will be provided. Extensive hands-on experience with demonstration and laboratory equipment will be included.

Prereq: Science teaching experience or three laboratory science courses.

**PHY 623 New Approaches to the Teaching of Science
in the Junior High School II. Two sem hours
(Formerly PHY 523)**

Emphasis will be placed on the philosophy, content, teaching strategies and implementation of newer science curriculum materials designed for use in the junior high or middle school. Needed subject matter background will be provided. Extensive hands-on experience with demonstration and laboratory equipment will be included.

Prereq: Science teaching experience or three laboratory science courses.

**PHY 625 Physical Science. Two sem hours
(Formerly PHY 525)**

A course for teachers dealing with some fundamentals of the physics and chemistry of electric charge, the forms of energy, and the conservation of energy.

Prereq: Three laboratory courses in science.

**PHY 650 New Approaches to Teaching
Physics I. Two sem hours
(Formerly PHY 550)**

Designed to increase the subject matter competency of those teaching or preparing to teach high school physics. Content, organization, problems, and philosophy of the latest high school physics text materials.

Prereq: One year of college physics and one course in calculus.

**PHY 651 New Approaches to Teaching
Physics II. Two sem hours
(Formerly PHY 551)**

Designed to increase the subject matter competency of those teaching or preparing to teach high school physics. The content, organization, problems and philosophy of the latest high school physics text materials.

Prereq: PHY 650 New Approaches to Teaching Physics I.

**PHY 652 Supervision of the Science
Program. Two sem hours
(Formerly PHY 552)**

Problems in organizing, staffing, planning, and evaluating the K-12 science program.

Prereq: Graduate standing.

**PHY 653 Recent Science Curricular
Developments. Two sem hours
(Formerly PHY 553)**

Problems in development and implementation of materials, methods and content of recent curricular efforts.

Prereq: Science teaching experience and graduate standing.

**PHY 662 Advanced Mechanics I. Three sem hours
(Formerly PHY 562, 662 Advanced Mechanics)**

This course considers exactly soluble problems in the mechanics of discrete and continuous media.

Prereq: Permission of graduate adviser.

PHY 663 Advanced Mechanics II. Four sem hours
This course describes the approximate solution of problems in the mechanics of linear continuous media via variational methods. Emphasis is placed on finite element analysis.
Prereq: PHY 662 Advanced Mechanics I and one course in computer science.

PHY 671 Electromagnetic Theory. Three sem hours
(Formerly PHY 571)
Provides the student with a foundation in the classical theory of the Maxwell field equations and indicates the many current applications. Typical topics covered are: Maxwell's equations, conservation laws, plane waves, wave guides, resonant cavities, dipole radiation, diffraction, radiation by moving charges, Bremsstrahlung, Cerenkov radiation, multiple fields, plasma electrodynamics.
Prereq: PHY 450 Electricity and Magnetism or departmental permission.

PHY 675 Quantum Mechanics. Four sem hours
(Formerly PHY 582)
The Schroedinger equation and its applications in three dimensions, angular momentum, electron spin, Heisenberg's matrix mechanics, Dirac notation, perturbation theories, variational methods, scattering theory.
Prereq: PHY 475 Introduction to Quantum Mechanics.

PHY 679, 680, 681 Special Topics in Physics. One, two and three sem hours
(Formerly PHY 537, 594)
An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. *Not more than six hours of special topics may be used on a degree program.*

PHY 682, 683, 684 Workshop in Physics. One, two and three sem hours
Laboratory and/or field experience guided toward problems and new curricula in physics and physical science.
Prereq: Departmental permission.

PHY 688 Cooperative Education in Physics. Two and three sem hours
The course involves a cooperative education experience for the equivalent of one semester full time. A written report is required at the end of the employment. *Credit/no credit. Credit on a graduate program is subject to departmental approval.*
Prereq: Departmental permission.

PHY 690, 691, 692 Thesis/Final Project. One, two and three sem hours
Intensive research in physics or physics education including the submission of a thesis or written report under the direction of a research adviser.
Prereq: Departmental permission.

PHY 693, 694, 695 Seminar in Physics. One, two and three sem hours
(Formerly PHY 596)
Presentation of special reports and group discussion on selected topics in physics and physical science.

PHY 697, 698, 699 Independent Study/Research. One, two and three sem hours
An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: Departmental permission.

ASTRONOMY COURSES

AST 503 Astronomy I. Two sem hours
A non-mathematical descriptive course in astronomy to acquaint the teacher with the general field of astronomy. Many of the topics considered can be used in the elementary classroom. A study of the sun and its family of planets as well as the stars and nebulae in the universe beyond the solar system. Naked eye observations of the constellations and telescopic observations of the moon, planets, double stars and clusters. *Not open to students who have credit in AST 203 Exploration of the Universe or AST 205 Principles of Astronomy.*

AST 504 Astronomy II. Two sem hours
A non-mathematical descriptive course in astronomy to increase the teacher's acquaintance with the general field of astronomy and the work of the astronomer. Many of the topics covered can be used in the elementary and junior high school classroom; the stellar system; a review of the solar system; and the motions of the earth. Naked eye and telescopic observations constitute the laboratory phase of the course.
Prereq: AST 503 Astronomy I or AST 203 Exploration of the Universe, AST 205 Principles of Astronomy or equivalent.

OTHER COURSES FOR CREDIT TOWARD M.S. IN PHYSICS OR PHYSICS EDUCATION

The following advanced undergraduate courses are also available to graduate students for graduate credit depending on the background, needs and curriculum of the student. On this matter the student should, before completing his registration, have a clear understanding with his adviser in the Department of Physics and Astronomy. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.* For descriptions of these courses, see the Undergraduate Catalog.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- PHY 431 Intermediate Mechanics II (3)
- PHY 436 Vibration and Sound (3)
- PHY 440 Optics (3)
- PHY 442 Optics Laboratory (1)
- PHY 450 Electricity and Magnetism (3)
- PHY 452 Electrical Measurements (4)
- PHY 454 Microcomputers in Science Laboratory (3)
- PHY 456 Electronics for Scientists (4)
- PHY 460 Heat and Thermodynamics (3)
- PHY 462 Kinetic Theory and Statistical Mechanics (3)
- PHY 471 Nuclear Physics (4)
- PHY 475 Introduction to Quantum Mechanics (3)
- PHY 481 Mathematical Physics (3)
- PHY 495 Readings in Physics (Honors Course) (1)

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
PHY 515				#
PHY 516	X			
PHY 540				#
PHY 622			#	
PHY 623			#	
PHY 625		#		
PHY 650				#
PHY 651	#			
PHY 662				X
PHY 663	X			
PHY 671				X
PHY 675	X			
AST 503			X	X
AST 504	X		X	

X Courses offered annually.

Courses offered on a two-year cycle in even years.

POLITICAL SCIENCE

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 Director
 Master of Public Administration Program
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Courses offered by the Department of Political Science serve the specific purposes of two programs: (1) a master of public administration and (2) an interdisciplinary master of arts in social science with a concentration in political science. Information on the latter program is listed in the History and Philosophy Department section of this catalog. In addition, many students from other disciplines select political science courses to meet cognate requirements or for other individual reasons.

MASTER OF PUBLIC ADMINISTRATION

Program Objectives

Built around required core courses, electives and cognates, the master of public administration program enables students to concentrate in local government administration—that is, the administration of small communities, medium-sized cities, regions, counties, and states. The program is academic in content, but aims at providing graduate professional education for individuals who are currently pursuing public service careers or are preparing to enter them as city managers, assistants to city managers, directors of public works, finance, personnel and human services departments, appointed city clerks, administrative personnel in engineering departments, and members of administrative staffs. The M.P.A. curriculum may thus provide a foundation for both entry level personnel such as analysts, researchers, and staff workers, and intermediate position holders intent upon advancing professionally as decision makers, politicians, and city managers.

The M.P.A. program received accreditation from the National Association of Schools of Public Affairs and Administration in June 1990. Institutional accreditation is important as it provides public confirmation that what the public administration program is doing is of acceptable quality and it assists us in improving our activities and recruitment. The accreditation process confirmed that the program is fulfilling its goals and missions to provide graduate education in public administration.

Admission Requirements

In addition to meeting The Graduate School degree admission requirements, applicants must meet a stricter overall undergraduate grade point average of 2.75 ("A" = 4.0) or 3.0 in the last half of the undergraduate program in order to be admitted to the master of public administration program. It is further understood that a personal interview with the program director is normally a part of the admission process.

If the applicant does not meet the requirements for regular admission, the requirements for conditional admission of the department are to be followed. For those students who show promise, but do not meet the undergraduate GPA requirement, non-degree admission (status 1: academic deficiencies) may be granted. (See Non-Degree Admission Status.) Applicants may be admitted to the program after completing a minimum of 10 graduate hours approved by the program director. A student must achieve a grade point average of 3.0 ("B") in the approved courses.

Although applicants' undergraduate degrees may be in any field, the nature of previous academic preparation may have an effect on their ability to achieve a satisfactory graduate record. Applicants will therefore be required to demonstrate or acquire specific preparation in statistics, accounting, public sector economics, and computer methods. They are also expected to have sufficient instruction in political science and other social sciences, or comparable professional experience gained outside the classroom, in order to perform satisfactorily in the program.

The following preparatory undergraduate courses are required of all applicants:

1. two political science courses in the fundamentals of American government, public law or public administration;
2. two basic economics courses—preferably macro and micro;
3. two social science courses in disciplines other than political science and economics; and
4. one course each in accounting, statistics, computer methods, and written communication.

Any of these preparatory courses that have not been completed may be taken at Eastern Michigan University or at other colleges and universities. These preparatory courses may be taken after admission to the M.P.A. program, concurrently with courses in the program, but they *must* be completed prior to completion of 12 graduate credits. Credits obtained in preparatory courses will not count toward the degree.

If the applicant's native tongue is not English, a TOEFL (Test of English as a Foreign Language) score of 550, or a score of 80 on the Michigan English Language Assessment Battery (MELAB) is required.

Program Requirements

The master of public administration is awarded upon satisfactory completion of at least 36 semester hours of appropriate credit, a total that may include up to nine hours in upper division 400-level undergraduate courses. All course selections must be approved by the program coordinator prior to registration each semester. Listed below are required, elective and cognate courses.

- A. Required Courses (six courses)
18 hours
 - PLS 510 Modern Public Administration (3)
 - PLS 515 Public Personnel Administration (3)
 - PLS 610 Public Organization Theory (3)
 - PLS 615 Public Budget Administration (3)
 - PLS 678 Quantitative Analysis in Government (3)
 - PLS 695 Research Seminar in Public Administration (3)
- B. Elective Courses (five courses)
10 hours
 - PLS 549 Comparative Administrative Systems (2)
 - PLS 565 Studies in State and Local Government (2)
 - PLS 590, 591, 592 Special Topics in Political Science (1,2,3)
 - PLS 620 Legal Aspects of Local Administration (2)
 - PLS 625 Small Community Administration and Politics (2)
 - PLS 630 Public Bureaucracies and Policy Formation (2)
 - PLS 640 Modern County Government (2)
 - PLS 645 Intergovernmental Relations (2)
 - PLS 688 Practicum in Public Affairs (3)
 - PLS 697, 698, 699 Independent Study (1,2,3)
 - ECO 550 Public Finance (3)
 - ECO 551 State and Local Government Finance (3)
- C. Cognate Courses (four courses)
eight hours
Choose one course from four of the following five groups:
 1. Planning Studies
 - PLS 520 Land Use and Preservation Law (3)
 - ECO 534 Regional and Urban Economics (3)
 - ECO 586 Economic Planning (3)
 - GEO 552 Processes of Suburban Development (2)
 - GEO 553 Urban and Regional Planning (2)
 - GEO 581 Advanced Environmental Assessment (2)

2. Community Studies
EDL 511 Community Organization (2)
HIS 533 Studies and Techniques in Local History (3)
SOC 656 Human Ecology and Community Development (3)
3. Leadership and Communication Studies
CTA 509 Communications for Leaders (2)
EDL 710 Leadership Theory (2)
MGT 567 Business Communication (3)
4. Quantitative Studies
ECO 510 Applied Economic Statistics (3)
EDP 651 Statistics II: Inferential Statistics (2)
MTH 573 Applied Statistics (2)
SOC 630 Advanced Social Statistics (3)
5. Personnel Studies
ECO 522 Collective Bargaining (3)
ECO 524 White Collar and Public Employee Unionism (3)

POLITICAL SCIENCE COURSES

PLS 510 Modern Public Administration. **Three sem hours**
An overview of the nature of public administration and its relation to politics and the tasks of the modern political system.
Prereq: Departmental permission.

PLS 515 Public Personnel Administration. **Three sem hours**
This course examines contemporary administration practices in public sector personnel management, particularly as related to the local level of government. Areas of emphasis include the collective bargaining process, discipline practices, grievance handling and arbitration preparation, affirmative action requirements and recruitment, and validation of evaluation and promotion practices.
Prereq: Departmental permission.

PLS 520 Land Use and Preservation Law. **Three sem hours**
A study of real property law in a political and legal context, with special emphasis on the private law devices of easement and covenants running with the land and on the public device of zoning.

PLS 545 International Relations. **Two sem hours**
Relations between nations, factors affecting behavior in the state system and possibilities of developing a viable international system.
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

PLS 546 Studies in International Law. **Two sem hours**
Selected problems in international law, the Law of the United Nations, world law, the law of war and peace, the International Court of Justice, national concepts of International law.

PLS 547 Communist Political Systems. **Two sem hours**
A comparative study of selected topics in the politics of Communist-ruled states—principally Soviet Russia, China and East Europe. Sources of bloc unity and diversity, as well as changing trends in and among communist states and parties will be examined.

PLS 549 Comparative Administrative Systems. **Two sem hours**
Processes of administrative adaptation to development goals in newly independent non-Western countries, current approaches and theories of administrative modernization and development in the light of Western and non-Western experiences.
Prereq: Departmental permission.

PLS 565 Studies in State and Local Government. **Two sem hours**
(Formerly PLS 587)
Studies in the governmental process at the state and local levels. Focuses on current issues and problems, including the changing aspects of federalism.

PLS 581 Contemporary Problems in American Government. **Two sem hours**
Executive-legislative relationships, judicial review, the making of foreign policy, national defense, public welfare, the electoral process, and the role of the citizen in American government.

PLS 587 Cooperative Education in Political Science. **Three sem hours**
Four to six months full-time employment in the public sector. The program consists of two directed work experiences alternated with full-time University attendance. *Application of credit toward political science programs is subject to departmental approval. Offered on a credit/no credit basis.*
Prereq: Departmental recommendation.

PLS 590, 591, 592 Special Topics in Political Science. **One, two and three sem hours**
(Formerly PLS 539)
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. *Not more than six hours of special topics may be used on a degree program.* Information on content can be obtained at department office.
Prereq: Departmental permission.

PLS 610 Public Organization**Theory.****Three sem hours**

An analysis of theories of organization in relation to government and public institutions.

Prereq: Departmental permission.

PLS 615 Public Budget**Administration.****Three sem hours**

An examination of the political significance and administrative procedures of government budgeting, with emphasis on the state and local levels.

Prereq: Departmental permission.

PLS 620 Legal Aspects of Local**Administration.****Two sem hours**

An examination of legal issues concerning governmental units, agencies, and governmental activities as they relate to public administration.

PLS 625 Small Community Administration and Politics.**Two sem hours**

An examination of the politics and administrative needs and problems of American communities with populations of less than 50,000.

PLS 630 Public Bureaucracies and Policy**Formation.****Two sem hours**

A study of the roles of public bureaucracies within the policy formation process. The course examines modern approaches to policy analysis, the nature of public bureaucracies, and the problems of implementing and evaluating public policies.

PLS 640 Modern County**Government.****Two sem hours**

Examines the past, present, and future of county government in the United States. Topics covered include the legal setting, organization and structure, intergovernmental relations, politics, finances, and service capabilities of counties.

PLS 645 Intergovernmental**Relations.****Two sem hours**

A study of recent trends in the American Federal system. The course examines the major programs and organizational structures used to coordinate public policies at the federal, state, and local levels of government. Emphasis will be placed on the concerns of local levels of government.

PLS 678 Quantitative Analysis in**Government.****Three sem hours**

Examines the uses of computers and statistical analysis in local and state governments.

Prereq: One course in statistics and one in computers; departmental permission.

PLS 688 Practicum in Public**Affairs.****Three sem hours**

Extends classroom learning through administrative experience with public sector agencies. Includes written assignments and a seminar designed to help students relate their field experience to public administration concepts.

Prereq: Departmental permission.

PLS 695 Research Seminar in Public**Administration.****Three sem hours**

A capstone course in the public administration curriculum, acquainting students with the major research trends and problems in the discipline. Requires from the student a substantial research project, to be reviewed by three faculty members.

Prereq: PLS 510 Modern Public Administration, PLS 610 Public Organization Theory, PLS 678 Quantitative Analysis in Government and departmental permission.

PLS 697, 698, 699 Independent**Studies.****One, two and three sem hours****(Formerly, PLS 597, 598, 599)**

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may be taken for graduate credit and applied on the degree program in social studies or as cognates by majors in other fields. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- PLS 410 Political Science in Fiction (3)
- PLS 412 Comparative Legal Systems (3)
- PLS 418 Twentieth-Century Political Theory (3)
- PLS 420 Advanced Political Thought (3)
- PLS 431 Theories of Public Organization (3)
- PLS 456 Criminal Law I (3)
- PLS 462 Foreign Relations of the Soviet Union (3)

PSYCHOLOGY

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DEGREE PROGRAMS OFFERED

The Department of Psychology offers graduate programs leading to a specialist in arts in school psychology and the master of science degree in psychology with emphasis in general psychology, clinical psychology and clinical behavioral psychology.

SPECIALIST DEGREE IN SCHOOL PSYCHOLOGY

The program is an interdisciplinary effort among the Departments of Teacher Education, Psychology and Special Education and is coordinated through the Department of Psychology.

Purpose and Objectives

1. Meet the state requirements for full approval of school psychologists.
2. Provide the psychological services required by state and federal laws.
3. Promote the student welfare through the development of effective programming recommendations.
4. Develop improved understanding of students' educational needs in parents, teachers, administrators and others interested in promoting student welfare.

Admission Requirements

The admission committee will select students in terms of the promise of successful completion of program requirements based on previous academic performance, evidence of aptitude, past experience and letters of recommendation. Committee decisions will be made once each year by June 15 for the fall class. Approximately 10 students will be accepted each year.

Applicants with a bachelor's degree (including all persons without a master's degree) must meet the following requirements:

1. Present background preparations in the areas of psychology, special education, or education. This preparation must include a bachelor's degree with a minimum of 36 hours primarily in the preceding fields.
2. Must have a minimum undergraduate grade point of 2.75 on a 4.0 scale.
3. Normally, students applying for the specialist's program should have a minimum of three years of full-time successful professional experience in the fields of psychology, special education, or education.
4. Must submit results of the verbal and quantitative sections of the Graduate Record Examination. In addition, the applicant must supply the advanced achievement tests in psychology or education on the Graduate Record Examination and achieve scores acceptable to the admissions committee.
5. Must supply letters of recommendation from three professional persons familiar with the academic performance and professional abilities.

Applicants holding the master's degree must meet all the above requirements except number 2. Persons with a master's degree must present a minimum undergraduate GPA of 2.5 and a graduate GPA of at least 3.3 ("B+").

Program Description and Graduation Requirements

The specialist in arts degree in school psychology requires a minimum of 62 semester credits of graduate work, including a 1,200 clock-hour internship. The course work and required educational experiences are designed to provide the competencies required by state law. The competencies ensure that the graduate will have a depth of understanding and ability to perform psycho-educational evaluations, help plan educational strategies, communicate findings, implement intervention programs, consult and counsel with school personnel, parents and pupils, and assume a leadership role in developing services to students.

Program requirements, including practicum and internship, will generally necessitate two calendar years of study. A minimum of three semesters of full-time day scheduling is required.

An overall GPA of 3.3 ("B+") is required for graduation.

ADMISSION REQUIREMENTS FOR PROGRAMS IN CLINICAL-BEHAVIORAL OR GENERAL PSYCHOLOGY

Admission to the graduate programs in clinical, clinical-behavioral or general psychology is available to those students who meet the degree admission requirements of both The Graduate School at Eastern Michigan University and the Department of Psychology. The primary criteria on which the selection is made are the promise of successful completion of the program requirements based on previous academic performances, acceptable scores on the Graduate Record Examination, and the applicant's suitability for the program.

To qualify for consideration for degree admission status in the graduate program in psychology, the student must:

1. meet the academic requirements for admission to The Graduate School;
2. present an undergraduate academic record of good quality (approximately 3.0 on a 4.0 scale or better);
3. present a minimum of 20 semester hours of credit in psychology, including courses in statistics and experimental psychology;
4. submit a transcript of scores from the Graduate Record Examination which includes the verbal, quantitative and the advanced (psychology) tests. The applicant is expected to attain a combined score of 1,000 on the verbal and quantitative tests in order to be admitted;
5. present three letters of recommendation from employers or others who can testify to the applicant's suitability for the program of study.
6. an autobiography describing academic and professional history and professional goals.
7. qualified applicants must also complete an interview prior to admission to the program.

Application to the psychology program should not be made until the stated requirements can be satisfied. Credits earned under non-degree student status do not automatically apply to the requirements of the degree program.

Applications should be submitted to The Graduate School in accordance with the instructions described in this catalog. A copy of the application should also be mailed directly to the Department of Psychology.

There are no admissions to degree programs in the spring and summer terms. After the admission quota for the program has been filled, students will be placed on a waiting list. Placement on the waiting list, however, does not guarantee admission unless spaces become available in accordance with departmental admission standards and policies.

MASTER OF SCIENCE DEGREE IN PSYCHOLOGY (GENERAL)

Program Objectives

The curriculum is designed to produce a master's level psychologist with general knowledge of psychology that includes a variety of content areas, research methodologies, and theoretical formulations. Students completing this program will enhance their opportunity to:

1. pursue employment in a wide variety of industrial and institutional settings;
2. continue their training in doctoral programs.

Program Description and Graduation Requirements

The master of science degree in general psychology requires the completion of 30 graduate credits, of which at least 24 hours must be graduate credits in psychology. The specific program of each student is designed in consultation with a graduate adviser. This program must be approved by the graduate adviser before the student may enroll for course credit.

The requirements outlined below provide the basic guidelines within which students' programs are developed.

1. Core requirement (nine hours)
 - PSY 600 Psychological Statistics I (3)
 - PSY 620 Learning (3)
 - PSY 646 Personality: Theory and Research (3)
2. Minimum of one course from Group A and one from Group B
 - Group A* (three hours)
 - PSY 601 Psychological Statistics II (3)
 - PSY 605 Research Design (3)
 - PSY 623 Experimental Analysis of Behavior (3)
 - PSY 625 Behavior Change Methods I (3)
 - PSY 626 Motivation and Emotion (3)
 - PSY 629 Physiological Psychology (3)
 - PSY 632 Sensation and Perception (3)
 - Group B* (three hours)
 - PSY 635 Cognitive Processes (3)
 - PSY 637 Social Psychology (3)
 - PSY 640 Developmental Psychology (3)
 - PSY 743 Psychopathology (3)
 - PSY 750 Clinical Psychology (3)
 - PSY 775 Theory of Psychological Testing (3)
3. Electives (12 hours)
 - Psychology courses within the department (6-12)
4. Cognate courses from outside the department (0-6)
5. PSY 692 Thesis (3)

Original research designed and completed by the student under the guidance of the thesis committee.

MASTER OF SCIENCE DEGREE IN PSYCHOLOGY (CLINICAL)

Program Objectives

This program offers specific training for the development of knowledge and skills required of the master's level clinician functioning in a variety of institutional and community mental health settings. This program is designed as a terminal degree, although it will not prevent the student from continuing graduate study.

The program objective is to produce graduates capable of recognizing, assessing and ameliorating client problems under the supervision of doctoral level clinical psychologists. It is intended that the graduate will be able to undertake and complete research problems typically found in the clinical setting. The practicum experiences are designed to provide opportunities to develop a variety of skills in assessment, diagnosis, psychotherapy and research commensurate with the master's level of training, and to provide the opportunity for professional growth through interaction with professional people from the various allied areas, such as medicine, social work, psychiatry, and public health. Graduates of this program may apply for limited license in Michigan and may seek admission to the doctoral programs if desired.

Program Description and Graduation Requirements

This program requires the completion of 45 graduate credits, the basic guidelines for which are outlined below.

1. Core Requirements (nine hours)
 - PSY 600 Psychological Statistics I (3)
 - PSY 646 Personality: Theory and Research (3)
 - PSY 743 Psychopathology (3)
2. Assessment (eight hours)
 - PSY 762 The Wechsler Intelligence Tests (4) and
 - PSY 770 Personality Evaluation I (4) or
 - PSY 771 Projective Techniques (4)
3. Professional Practice/Treatment (six hours)
 - PSY 750 Clinical Psychology (3)
 - PSY 751 Psychotherapy (3)
4. Practicum (six hours)
 - PSY 788 Practicum in Clinical Psychology I (3)
 - PSY 789 Practicum in Clinical Psychology II (3)
5. Electives (16 hours)
 - Psychology courses within the department (9-15 hours)
6. Cognate courses from outside the department (0-6 hours)

MASTER OF SCIENCE DEGREE IN PSYCHOLOGY (CLINICAL BEHAVIOR)

This program provides a contemporary behavioral approach for students who plan to apply for a Michigan limited license in psychology. Students learn to examine problems from the standpoint of a systems analysis, carry out a functional analysis of behavior, conduct data-based treatment interventions, and carry out effective assessment and modification of behavior. Students develop skills in areas such as stress management, relaxation training, covert conditioning, behavior modification and therapy, geriatric environmental planning, and behavioral medicine.

Program Objectives

1. Prepare students to meet state licensing law requirements for the psychology limited license.
2. Train students to apply principles of behavior to a wide variety of problem areas.
3. Train students to write and implement behavior treatment programs.
4. Train students to carry out a systems analysis and learn to work within organizational structures.
5. Have students qualify for certification from the Association for Behavior Analysis.

These goals and objectives are designed to be consistent with requirements for credentialing master's level psychologists. Non-traditional settings employing master's level psychologists normally focus on data-based treatment strategies and accountability. Students trained in this program will be highly qualified to provide these services. Graduates from the program also have gone on to train for higher degrees.

Graduation Requirements

The program requires the completion of 45 graduate credits that are outlined below.

1. Core (nine hours)
 - PSY 600 Psychological Statistics I (3)
 - *PSY 620 Learning (3)
 - *PSY 623 Experimental Analysis of Behavior (3)
2. Assessment (Evaluation) (seven hours)
 - *PSY 619 Behavioral Assessment (3)
 - PSY 762 The Wechsler Intelligence Tests (4) or
 - PSY 770 Personality Evaluation I (4)
3. Treatment (Intervention) (six hours)
 - *PSY 625 Behavior Change Methods I (3)
 - *PSY 627 Behavior Change Methods II (3)
4. Practicum (eight hours)
 - PSY 641 Prepracticum I: Assessment (1) (To be taken concurrently with PSY 619 Behavioral Assessment.)
 - PSY 651 Prepracticum II: Research (1) (To be taken concurrently with PSY 623 Experimental Analysis of Behavior.)

- PSY 661 Prepracticum III: Individual Treatment (1) (To be taken concurrently with PSY 625 Behavior Change Methods I.)
- PSY 671 Prepracticum IV: Treatment in Systems (1) (To be taken concurrently with PSY 627 Behavior Change Methods II.)
- PSY 683 Field Practicum with Seminar (2) (250 hours field experience)
- PSY 684 Field Practicum with Seminar (2) (250 hours field experience)

5. Electives (15 hours)

Cognates may be taken in other departments with permission from the adviser for a total of six credit hours.

*Students admitted to the clinical behavioral program must achieve a minimum grade of "B" in each of the following courses, PSY 619, 620, 623, 625 and 627. A student who receives a grade lower than "B" in any of these courses may elect to repeat the class in order to meet graduation requirements.

PSYCHOLOGY COURSES OPEN TO SENIORS WITH PERMISSION OF GRADUATE SCHOOL AND TO MASTER'S DEGREE STUDENTS WITH PERMISSION OF GRADUATE ADVISER

PSY 520 Coping with Problem Behavior.

Two sem hours

The application of psychological principles of learning to school (and school-related) problem behaviors. Emphasis is on procedures that can be implemented with minimal cost by classroom teachers, principals, and other school-related personnel.

Prereq: One course in psychology.

PSY 528 The Psychology of Stress and Relaxation.

Three sem hours

An overview of major stress theories, personal and professional application of relaxation and stress prevention techniques and exploration of therapeutic and community efforts designed to deal with stress related problems.

Prereq: One course in psychology.

PSY 532 Psychology of Adolescence.

Two sem hours

Physical, intellectual, emotional, and social development from puberty to adulthood with emphasis on the significance for teachers and others interested in youth.

Prereq: One course in psychology.

PSY 535 Developmental

Psycholinguistics.

Three sem hours

An introduction to the processes involved in children's learning of oral language.

Prereq: One course in psychology or permission of the instructor.

PSY 540 Psychology of Adjustment.

Two sem hours

Issues, concepts, principles, and theories in human adjustment.

Prereq: One course in psychology.

PSY 542 Women and Mental Health.

Two sem hours

Focus on theory and research concerning women's responses to life stresses, women as clients in psychotherapy, and the role of the female mental health professional.

Prereq: One course in psychology.

PSY 543 Abnormal Psychology.

Two sem hours

Behavior pathologies of children and adults, including symptom origins and methods of treatment. *Not open to students who hold credit in PSY 360 Abnormal Psychology.*

Prereq: One course in psychology.

PSY 550 Dynamics of Human Behavior.

Two sem hours

The determinants of behavior and personality with emphasis on the physiological, psychological, and cultural bases.

Prereq: One course in psychology.

PSY 551 Psychology of Death and Dying.

Two sem hours

Study of attitudes toward, theories about and empirical data concerning human mortality and suicide and its relevance to life adjustment, aging, religion, and other areas.

Prereq: PSY 360 Abnormal Psychology or PSY 543 Abnormal Psychology and PSY 552 Theories of Personality.

PSY 552 Theories of Personality.

Two sem hours

Major theories of personality including Freud, Jung, Adler, Rank, Sullivan, Kelly, Holistic, and learning theorists.

Prereq: One course in psychology.

PSY 553 Existential Psychology.

Two sem hours

Origins, growth, major contributors and foci of concern of the existential movement(s) in psychology and psychotherapy.

Prereq: Two courses in psychology; PSY 552 Theories of Personality is recommended.

PSY 560 Psychology of Film.

Three sem hours

Examination of the interaction of film, audience, and filmmaker. Major topics include psychology of viewer and

film-maker, cinematic presentations of psychology, family, male/female relationships, violence, and sexuality.
Prereq: Graduate status.

PSY 565 Industrial Psychology. Two sem hours
Psychological principles, theories and methodology applied to behavior in industrial settings. *Not open to students who hold credit in PSY 351 Industrial Psychology.*
Prereq: One course in psychology.

PSY 567 Engineering Psychology. Two sem hours
A survey of psychological principles, theories, and methodology relating to the human use which is made of the products of engineering design processes. Attention is given to simple products (e.g., common household articles) as well as complex products (e.g., computerized decision aids), and to how psychological research can contribute to improvements in product design.
Prereq: One course in psychology.

PSY 570 Consumer Psychology. Two sem hours
A survey of psychological principles, theories, and methodology relating to consumer behavior.
Prereq: One course in psychology.

PSY 580 Psychology of Individual Differences. Two sem hours
The objective and quantitative investigation of human variability in behavior phenomena and the factors influencing these differences.
Prereq: One course in psychology.

PSY 595 Workshop in the Scientific Approach to Problem Solving. Two sem hours
The scientific approach to the solving of problems, the application of psychological principles.
Prereq: One course in psychology.

COURSES OPEN ONLY TO GRADUATE STUDENTS

PSY 600 Psychological Statistics I. Three sem hours
A study of statistical techniques including small sample theory, analysis of variance, and non-parametric statistics.
Prereq: PSY 205 Quantitative Methods in Psychology or equivalent and departmental permission.

PSY 601 Psychological Statistics II. Three sem hours
More complex analysis of variance models plus various correlational procedures.
Prereq: PSY 600 Psychological Statistics I and departmental permission.

PSY 605 Research Design. Three sem hours
Research methods and analysis of data.
Prereq: PSY 301 Introductory Experimental Psychology and departmental permission.

PSY 610 Clinical Neuropsychology. Three sem hours
Study of methodology, research and clinical application of clinical neuropsychological principles. Includes demonstration of neuropsychological assessment test instruments.

Prereq: Graduate student; 20 hours in psychology or equivalent and departmental permission.

PSY 619 Behavioral Assessment. Three sem hours
(Formerly PSY 519)

A behavioral approach to measuring and analyzing personality using standardized tests and behavioral observation techniques; multiple test administration, scoring, and evaluation experience are included in concurrent enrollment in PSY 641 Practicum I: Assessment.

Prereq: Departmental permission.

PSY 620 Learning. Three sem hours
Research methods, experimental findings, and theories of learning.

Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 623 Experimental Analysis of Behavior. Three sem hours

The principles and parameters of respondent and operant conditioning and their application. Lecture and laboratory.

Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 625 Behavior Change Methods I. Three sem hours

Behavioral theory and research relating to issues, techniques, and implementation of treatment for psychological problems are introduced. *To be taken concurrently with PSY 661 Prepracticum III; Individual Treatment.*

Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 626 Motivation and Emotion. Three sem hours
A review of major findings, theories, and recent research developments in the areas of motivation and emotion.

Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 627 Behavior Change Methods II. Three sem hours

The study of the application of behavioral analysis in systems and organizations such as business, industry, schools, the family, and health care settings. *Concurrent registration in PSY 671 Prepracticum IV: Treatment in Systems required.*

Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 629 Physiological Psychology. Three sem hours
An examination of physiological processes and their relationships to behavior.

Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 630 Behavioral Medicine. Three sem hours
Study of the application of behavioral science theory, principles and methods to understanding health and illness and to prevention, diagnosis, treatment, rehabilitation, and health-care delivery.

Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 632 Sensation and Perception. Three sem hours
A review of research and theory dealing with sensory experience and perception.

Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 635 Cognitive Processes. Three sem hours
A review of theoretical and empirical developments in the area of thinking, problem solving, concept formation, creativity, and decision making.

Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 637 Social Psychology. Three sem hours
The study of the processes underlying social interaction and behavior in social contexts.

Prereq: Twenty hours in psychology and departmental permission.

PSY 640 Developmental Psychology. Three sem hours
Biological, intellectual, social, and emotional changes through the life span. Major concepts and problems related to developmental stages of life.

Prereq: Twenty hours in psychology and departmental permission.

PSY 641 Prepracticum I: Assessment. One sem hour
Methods for measuring and analyzing behavior will be carried out in applied setting. *Two hours of field work are required each week. Concurrent registration in PSY 619 Behavioral Assessment is required.*

Prereq: Departmental permission.

PSY 646 Personality: Theory and Research. Three sem hours
Advanced study of concepts and empirical research in personality.

Prereq: Twenty hours in psychology, including PSY 451 Dynamics of Personality or equivalent and departmental permission.

PSY 651 Prepracticum II: Research. One sem hour
Research that involves the experimental analysis of behavior will be conducted two hours each week in laboratory or field setting. *Concurrent registration in PSY 623 Experimental Analysis of Behavior is required.*

Prereq: Twenty hours in psychology and departmental permission.

PSY 661 Prepracticum III: Individual Treatment. One sem hour

Single casework with persons interested in changing unwanted behaviors will be carried out for two hours each week. *Concurrent registration in PSY 625 Behavior Change Methods I is required.*

Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 671 Prepracticum IV: Treatment in Systems. One sem hour

Casework will be conducted in a setting that will permit a system analysis and intervention such as a school, institution, or family setting. The course requires two hours of field work each week. *Concurrent registration in PSY 627 Behavior Change Methods II is required.*

Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 680, 681 Special Topics. Two and three sem hours

Course content will change from semester to semester. *Prereq: Departmental permission.*

PSY 683, 684 Field Practicum with Seminar. Two sem hours each

Students will participate in an organized health care setting for at least 250 clock hours. The practicum is to be supervised by a licensed psychologist on a regular, continuous, and scheduled basis. *Credit/no credit.*

Prereq: PSY 641 Prepracticum I: Assessment, PSY 651 Prepracticum II: Research and PSY 661 Prepracticum III: Individual Treatment or PSY 671 Prepracticum IV: Treatment in Systems and departmental permission.

PSY 690, 691, 692 Thesis. One, two and three sem hours

Completion of research problem, writing thesis, and defense of thesis. *Credit/no credit.*

Prereq: Departmental permission.

PSY 697, 698, 699 Individual Reading. One, two and three sem hours
(Formerly PSY 591, 592, 593)

Supervised reading psychological literature to provide in-depth understanding of a selected psychological problem.

Prereq: One course orienting student to the problem area and departmental permission.

**PSY 743 Psychopathology. Three sem hours
(Formerly PSY 643)**

A study of behavior disorders with emphasis upon current research methodologies, special problems, and theoretical formulations, including controversial issues and social and ethical considerations.

Prereq: Twenty hours in psychology, including PSY 360 Abnormal Psychology or departmental permission.

**PSY 750 Clinical Psychology. Three sem hours
(Formerly PSY 650)**

An overview of the field of clinical psychology, including the history of clinical psychology, professional practice, ethics, legal issues, and current critical issues.

Prereq: Twenty hours in psychology and departmental permission.

**PSY 751 Psychotherapy. Three sem hours
(Formerly Dynamic Psychotherapy)**

Principles of psychological interviewing, psychotherapy, and psychotherapeutic techniques.

Prereq: Graduate status in M.S. clinical program or allied graduate programs (educational psychology, guidance and counseling, social work) and departmental permission.

**PSY 762 The Wechsler Intelligence Tests. Four sem hours
(Formerly PSY 662, 762 Individual Testing I)**

Training and supervised experience in the administration and interpretation of the WISC and WAIS tests, plus a review of the relevant clinical research literature.

Prereq: Departmental permission.

**PSY 763 Individual Testing II. Four sem hours
(Formerly PSY 663)**

Training and supervised experience in cognitive assessment with Binet scales and introduction to assessment instruments in related areas of infant development, visual-motor perception, auditory perception, academic achievement, and adaptive behavior functioning; focus on school-age children.

Prereq: PSY 762 The Wechsler Intelligence Tests and departmental permission.

**PSY 770 Personality Evaluation I. Four sem hours
(Formerly PSY 670)**

An introduction to individual clinical tests in the study of personality diagnosis. Includes learning to administer, score and interpret the MMPI and 16 PF. Entails a knowledge of the clinical assessment research literature covering the reliability of each testing method.

Prereq: Departmental permission.

**PSY 771 Projective Techniques. Four sem hours
(Formerly PSY 671 Personality Evaluation II)**

Introduction to administration, scoring, and interpretation of projective techniques with special emphasis upon the Rorschach and TAT.

Prereq: Departmental permission.

**PSY 775 Theory of Psychological Testing. Three sem hours
(Formerly PSY 660)**

Assumption, rationale, and statistical foundation of psychological tests used in differential diagnosis.

Prereq: Twenty hours in psychology and departmental permission.

**PSY 788 Practicum in Clinical Psychology I. Three sem hours
(Formerly PSY 680)**

Supervised psychological testing and interviewing in a clinical setting. *Credit/no credit.*

Prereq: PSY 750 Clinical Psychology, PSY 762 The Wechsler Intelligence Tests and departmental permission.

**PSY 789 Practicum in Clinical Psychology II. Three sem hours
(Formerly PSY 681)**

Supervised psychological testing and counseling in a clinical setting, plus completion of a research project in that setting. *Credit/no credit.*

Prereq: PSY 788 Practicum in Clinical Psychology I and departmental permission.

**PSY 793 Seminar in School Psychology. One sem hour
(Formerly PSY 696)**

Biweekly seminar for presentation and discussion of critical issues and problems in school psychology, including case studies, role definitions, ethical problems, inter- and intra-professional relationships and research findings. Four semester hours required on degree program. *Credit/no credit.*

Prereq: Admission to the school psychology program and departmental permission.

PSY 794, 795 Internship in School Psychology. Three sem hours each

A full-time supervised experience in school settings in which student demonstrates proficiencies acquired and acquires new skills and knowledge best learned in field settings.

Prereq: Permission of coordinator of school psychology program.

SOCIOLOGY, ANTHROPOLOGY, AND CRIMINOLOGY

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The department offers two graduate degree programs; one in sociology, and one in criminology and criminal justice. A family specialty concentration and a specialty concentration in evaluation and applied research are also available within the sociology degree.

MASTER OF ARTS IN SOCIOLOGY

The M.A. program in sociology is designed to prepare students for: careers in business, industry and government at local, state, and federal levels; further graduate work leading toward the Ph.D. in sociology; and post-secondary teaching.

Admission Requirements

To qualify for admission to the M.A. program in sociology, applicants must have an undergraduate grade point average of at least 2.5 ("A" = 4.0) with a 3.0 in their major, or demonstrate the ability to do quality graduate work by attaining a score at the 60th percentile on the Graduate Record Exam. In addition, they must have completed the following undergraduate courses or their equivalents:

SOC 250 Social Statistics I
SOC 304 Methods in Sociological Research
SOC 403 Modern Sociological Theory

Applicants who have not completed one or more of these courses may be admitted conditionally to the program with the permission of the program chairperson. Courses required to make up deficiencies in sociology will be arranged with the graduate adviser in the Sociology Department and will be above and beyond (and sometimes prior to) the 31 hours of requirements.

Course Requirements

1. Concentration area (21 sem hours)
 - SOC 503 The Family as an Institution (3)
 - SOC 513 Social Deviance (3)
 - SOC 630 Advanced Social Statistics (3)
 - SOC 640 Advanced Sociological Theory (3)
 - SOC 647 Contemporary Community Structure (3)
 - SOC 677 Advanced Methods in Sociological Research (3)
 - SOC 678 Methods in Social Program Evaluation (3)
2. Electives (0-10 sem hours)
Additional graduate sociology electives as approved by graduate adviser in the Sociology Department.
3. Cognates (0-6 sem hours)
Courses in other fields, as approved by graduate adviser in the Sociology Department.
4. SOC 690, 691, 692 Thesis (4) or Non-thesis option (4)
(See non-thesis option.)

TOTAL 31 hours

Selected 400-level undergraduate courses in sociology and anthropology may be taken for graduate credit in consultation with the graduate adviser. Graduate students in sociology may take courses SOC 500-509 for elective credit as part of their course requirements only upon the approval of the graduate adviser in the department. Graduate students not majoring in sociology but desiring a cognate in the department may also elect these courses for cognate credit in consultation with their advisers.

All graduate students in sociology are required to have their programs approved by the graduate adviser in the Sociology, Anthropology, and Criminology Department prior to registration each semester.

FAMILY SPECIALTY CONCENTRATION

The family specialty concentration within the master's degree curriculum in sociology provides knowledge and skills in theory and methodology with specific emphasis on the family as a social institution. The program is designed to prepare students for more responsible positions in the public and private sector serving families. It serves the following educational and career goals:

1. achievement of basic academic knowledge for students preparing to pursue the Ph.D. in sociology or teach at the community college level;
2. increased knowledge and skills for students already employed in applied fields of sociology, especially in agencies serving or working with families in such settings as social service agencies, schools, courts, hospitals, or community education;
3. knowledge and skills to prepare students for careers in family sociology.

Course Requirements

1. Concentration area (25 sem hours)
 - SOC 503 The Family as an Institution (3)
 - SOC 630 Advanced Social Statistics (3)
 - SOC 640 Advanced Sociological Theory (3) or
 - SOC 643 Organizations and Networks (3)
 - SOC 646 Research in Family Interaction (3)
 - SOC 662 Supervised Field Experience (2)*
 - SOC 677 Advanced Methods in Sociological Research (3)
 - SOC 678 Methods in Social Program Evaluation (3)
 - SOC 513 Social Deviance (3) or
 - SOC 647 Contemporary Community Structure (3)
2. Electives (zero to nine sem hours)
3. Cognates (zero to six sem hours)
4. SOC 690, 691, 692 Thesis (4) or Non-thesis option (4)
(See non-thesis option.)

TOTAL 32-34 hours

*Two semesters (four credit hours) of supervised field experience that is approved by the department to provide either experience in family research or some application of family sociology.

Evaluation and Applied Research Specialty

The evaluation and applied research specialty within the master's degree curriculum in sociology provides knowledge and skills in theory and general methodology, but with specific emphasis on the evaluation of on-going programs. The option is designed to prepare students for more responsible positions in the applied areas of sociology. It would service the following educational and career goals:

1. knowledge and skills to prepare students for careers in evaluation and applied research;
2. increased knowledge and skills for students already employed in applied fields of sociology, either in the private sector or in agencies serving or working with populations in such settings as social service agencies, schools, courts, prisons, police departments, hospitals, or community education;
3. achievement of basic knowledge for students preparing to pursue the Ph.D. in sociology or teach at the community college level.

Course Requirements

1. Concentration area (25 sem hours)
 - SOC 630 Advanced Social Statistics (3)
 - SOC 640 Advanced Sociological Theory (3) or
 - SOC 643 Organizations and Networks (3)
 - SOC 647 Contemporary Community Structure (3)
 - SOC 662 Supervised Field Experience (2)*
 - SOC 677 Advanced Methods in Sociological Research (3)

- SOC 678 Methods in Social Program Evaluation (3)
- SOC 695 Program Evaluation Skills Development Seminar (3)

One of the following:

- SOC 504 Demographic Analysis (3)
- SOC 636 Qualitative Analysis (3)
- SOC 641 Theory Construction and Verification (3)

2. Cognates (zero-nine sem hours)
3. Electives (zero-six sem hours)
4. SOC 690, 691, 692 Thesis (4) or Non-thesis option (four sem hours)
(See non-thesis option.)

*Two semesters (four credit hours) of supervised field experience that is approved by the department to provide either experience in evaluation research or some aspect of applied sociology.

MASTER OF ARTS IN CRIMINOLOGY AND CRIMINAL JUSTICE

The master's degree curriculum in criminology and criminal justice serves the following educational and career goals:

1. the attainment of advanced education for persons who wish to enter careers in post-secondary education;
2. the development of skills in research and program planning and evaluation in criminology and criminal justice;
3. the strengthening of the professional qualifications of persons employed in the fields of criminal justice.

The analytical and evaluative skills offered by this program should enable students to identify, evaluate and assess the often conflicting objectives of criminal justice and to apply this knowledge to the investigation of basic issues and practical problems in criminology and the administration of criminal justice.

Admission Requirements

Applicants must have at least a 3.0 ("A" = 4.0) grade point average in their undergraduate work or demonstrate the ability to do quality work by attaining a score at the 60th percentile on the Graduate Record Exam. In addition, they must have completed the following undergraduate courses or their equivalent.

SOC 250	Social Statistics I*
SOC 304	Methods in Sociological Research*
SOC 371	Criminology
SOC 372	Criminal Justice in Contemporary Society

*SOC 341 and SOC 342 Quantitative Methods of Social Research I and II can be substituted for SOC 250 and SOC 304.

A grade of no less than "B" is required in SOC 250 Social Statistics I, SOC 304 Methods in Sociological Research or in SOC 341 and SOC 342 Quantitative Methods of Social Research I and II. Applicants who meet the grade point average requirement, but have not completed one or more of these courses may be admitted conditionally to the program with the permission of the program chairperson and complete them prior to taking required graduate courses.

Course Requirements

The degree program consists of 31 hours of credit apportioned as follows:

- Concentration area (17-21 sem hours)
 - SOC 412G Law and Society (3)
 - SOC 513 Social Deviance (3)
 - SOC 610 Theories of Criminal Behavior (3)
 - SOC 611 Sociology of Crime and its Correction (3)
 - SOC 647 Contemporary Community Structure (3)
 - SOC 677 Advanced Methods in Sociological Research (3)
 - SOC 678 Methods in Social Program Evaluation (3)
- Electives (six-10 sem hours)
- SOC 690, 691, 692 Thesis (4) or Non-thesis option (4)
(See non-thesis option.)

TOTAL 31 hours

THESIS REQUIREMENT

Each student may choose to write a thesis as part of either the master of arts program in sociology or criminology and criminal justice (four hours of the graduate program are set aside for thesis preparation). The subject of the thesis is determined by the student and the advisers in light of the special interests of the student. The completed thesis must be approved by the department.

NON-THESIS OPTION

Students who select the non-thesis option must submit two essays that may be based on papers completed in graduate courses but of higher quality than the usual term paper. Students choosing this option are required to complete 31 hours of course work. A paper accepted as an essay to meet this option must meet the requirements established by the department and be approved by the department. The topic of the paper must deal with a substantive or theoretical issue in sociology, criminology and criminal justice, or a methodological issue.

SOCIOLOGY COURSES

SOC 500 Man in Society. Two sem hours
Basic concepts, theory and analysis of social structures, social process, and social disorganization. *Not open to students who have credit in SOC 105 Introductory Sociology.*

SOC 501 Contemporary Society. Two sem hours
Basic sociological concepts and principles in an understanding of contemporary society; sociological research studies will be analyzed in detail. *Not open to students who have credit in more than two courses in sociology. Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.*

SOC 502 Racial and Cultural Minorities. Two sem hours
Racial and cultural minorities in the modern world with particular references to the black race and to European and Oriental immigrants in the United States; racial myths, doctrines and movements; conflict and accommodation of majority and minority peoples; proposed solutions of ethnic problems. *Not open to students with credit in SOC 214 Racial and Cultural Minorities. Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.*

SOC 503 The Family as an Institution. (Formerly Marriage and the Family) Three sem hours
The course highlights changes in marriage, family composition, social relations and roles, as well as the mutual interdependence between these and other institutions of society. It begins with the traditional pre-industrial or pre-urban family, showing how and why the family began changing at a rapid rate and exploring the problems of transitional phases. The present family with its middle class ideals is then examined closely. Finally, several trends in modern families are identified and some tentative predictions about future families and alternate family forms are made. *Not open to students with credit in SOC 450 The Family. Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.*

**SOC 504 Demographic Analysis. Three sem hours
(Formerly Population)**

The analysis of population dynamics with special emphasis on applied research using computer simulation. Focus on the social, political, and economic implications of the relationship among human numbers, population composition, and resources.

Prereq: SOC 105 Introduction to Sociology or SOC 500 Man in Society.

**SOC 505 Sociology of Science and
Technology. Three sem hours**

An introduction to the sociology of the scientific and technological communities and to the social processes involved in changes in science and technology.

Prereq: Graduate standing or permission of instructor.

SOC 506 Criminology. Three sem hours

The study of the nature, measurement, types and causes of crime. *Not open to students with credit in SOC 371 Criminology.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.

**SOC 507 Criminal Justice in Contemporary
Society. Two sem hours**

The course gives critical analysis of various components of criminal justice. Interrelationships to broader societal processes are stressed. Focus is directed on the police, courts and parts of the punitive/correctional apparatus.

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.

SOC 508 Social Psychology. Two sem hours

An introductory study of the order and regularity underlying processes of human interaction, motives and attitudes, social norms and roles, the socialization process, personality, and group membership. The effect of group membership upon individual behavior. *Not open to students with credit in SOC/PSY 308 Social Psychology.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society and PSY 101/102 General Psychology.

**SOC 509 Personality and Social
Systems. Two sem hours**

The cross-cultural study of personality and socio-cultural systems. Attention is paid to modal personality types as these relate to group structure, socialization, and social structure. Individual differences are not studied. *Not open to students with credit in ANT/SOC 309 Culture and Personality.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society or ANT 135 Introduction to Cultural Anthropology/ANT 505 Cultural Anthropology.

SOC 513 Social Deviance. Three sem hours

The development of deviant self-conceptions; social psychological processes of group alienation and individual estrangements. Deviant behavior patterns and the development of deviant careers; theories of deviance.

Prereq: Two courses in sociology.

SOC 515 Sociology of Women. Three sem hours

The course examines the changing role of women in American institutions especially in the world of work and in the family. Materials on minority and working-class women will be included.

Prereq: Graduate standing or permission of instructor.

**SOC 547 Advanced Studies in
Criminology. Three sem hours**

An intensive analysis of selected problems in criminology and the application of criminology to policies and programs of crime prevention and control.

Prereq: SOC 371/506 Criminology and SOC 372/507 Criminal Justice in Contemporary Society.

**SOC 610 Theories of Criminal
Behavior. Three sem hours
(Formerly SOC 510)**

Consideration of major theories of criminal and delinquent causation. Emphasis on sociological factors in criminal acts and dynamics of criminal and delinquent behavior.

Prereq: Two courses in sociology, including SOC 371 Criminology.

**SOC 611 Sociology of Crime and Its
Correction. Three sem hours
(Formerly SOC 511)**

Punishment, rehabilitation, and contemporary correctional policies. The courts and criminal responsibility. The social structure of correctional organizations and institutions and their effect on the correctional process.

Prereq: Two courses in sociology, including SOC 371 Criminology.

**SOC 630 Advanced Social Statistics. Three sem hours
(Formerly SOC 530)**

This course will focus considerable attention on non-parametric statistics but also will examine the problem of controlling for variables in a statistical sense. Certain of the classical techniques of multivariate analysis will be included.

Prereq: SOC 250 Social Statistics I.

**SOC 636 Qualitative Analysis. Three sem hours
(Formerly SOC 536)**

An examination of the methods and techniques of quantitative analysis in sociology. Research will be conducted by class members and reviewed in seminar presentations.

Prereq: SOC 304 Methods in Sociological Research and SOC 403 Modern Sociological Theory.

SOC 640 Advanced Sociological Theory. Three sem hours
(Formerly SOC 540)

An analysis of contemporary theoretical schools of thought in sociology.

Prereq: SOC 304 Methods in Sociological Research and SOC 403 Modern Sociological Theory.

SOC 641 Theory Construction and Verification. Three sem hours
(Formerly SOC 541)

Analysis of contemporary strategies in theory, construction, and verification. Problems of validity and reliability will be emphasized. Open to non-sociology majors with permission of the instructor.

Prereq: SOC 304 Methods in Sociological Research and SOC 403 Modern Sociological Theory.

SOC 642 Social Stratification Theory and Research. Three sem hours
(Formerly SOC 542)

A comprehensive study of the theories of social stratification, an examination of the problems encountered in attempts at empirical verification of these theories and an exploration of current research relating to social stratification.

Prereq: SOC 310 Contemporary American Class Structure or an undergraduate degree in sociology.

SOC 643 Organizations and Networks. Three sem hours

How organizations are created and changed as they struggle to achieve their goals. Theoretical readings and case studies on organizational and inter-organizational dynamics provide theoretical and practical knowledge for students.

Prereq: Graduate standing in sociology or permission of the instructor.

SOC 645 Advanced Social Psychology. Three sem hours
(Formerly SOC 545)

This course is an in-depth study of interpersonal behavior and group processes with special emphasis on the effects of group membership on individual behavior. Topics studied may include attitudes, interpersonal influence and attraction, and leadership.

Prereq: SOC 250 Social Statistics I, SOC 304 Methods in Sociological Research and SOC 308 Social Psychology.

SOC 646 Research in Family Interaction. Three sem hours
(Formerly SOC 551)

Review of research on family interaction, with particular emphasis on experimental observational studies. Power structure role differentiation, communication patterns, and coalition formation.

Prereq: Nine credit hours in sociology.

SOC 647 Contemporary Community Structure. Three sem hours
(Formerly SOC 555)

Theoretical perspectives in the analysis of urban communities including urban change, the development of stratification patterns and power structures, and the role of various urban institutions.

Prereq: Nine credit hours in sociology.

SOC 656 Human Ecology and Community Development. Three sem hours
(Formerly SOC 556)

An analysis of the forms and development of the urban community; spatial and temporal patterns, organization of urban functions, rural-urban relationships, and the current metropolitan trend in the U.S.

Prereq: Nine credit hours in sociology.

SOC 662 Supervised Field Experience. Two sem hours
(Formerly SOC 594)

Supervised internship in a community agency such as a correctional institution, an enforcement agency, human relations committee, city planning agency, or in a project for the rehabilitation of persons in culturally or economically deprived segments of the community. Students are ordinarily placed for two consecutive semesters.

Prereq: Departmental permission.

SOC 665 Program Evaluation Skills Development Seminar. Three sem hours

This course advances the evaluation and applied research skills of the student. It requires students to do an evaluation on-site in an agency. Type of agency may vary each time course is offered.

Prereq: SOC 678 Methods in Social Program Evaluation.

SOC 677 Advanced Methods in Sociological Research. Three sem hours
(Formerly SOC 535)

Relationship of theory and research is stressed. Consideration of the research process as a decision-making situation both on the general level of research design and the specific level of special techniques. The process and logic data analysis.

Prereq: SOC 304 Methods of Sociological Research.

SOC 678 Methods in Social Program Evaluation. Three sem hours
(Formerly Research Methods in Criminology and Criminal Justice Evaluation/Research Methods in Social Program Evaluation)

The course is designed to train students in strategies, techniques, and issues in social program evaluation. It will be concerned both with the design of program evaluations and with their implementation in various social settings.

Prereq: SOC 304 Methods of Sociological Research.

SOC 679, 680, 681 Special Topics in Sociology. One, two and three sem hours
(Formerly SOC 539)

A brief, intensive exploration of specific aspects of crime and its relationship to social organization.

SOC 683 Workshop in Crime and the Community. Two sem hours (summer only)
(Formerly SOC 595)

A brief, intensive exploration of specific aspects of crime and its relationship to social organization. *Not open to students with credit in SOC 371 Criminology.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.

SOC 688 Cooperative Education. Three sem hours
Practical experience in business, industrial, or governmental settings which provide job skills.

Prereq: Regular degree admission to one of the departmental graduate programs and six hours of graduate credit in sociology.

SOC 690, 691, 692 Thesis. One, two and three sem hours

Credit/no credit.

Prereq: Departmental permission.

SOC 694 Seminar in Sociology. Two sem hours
(Formerly SOC 596)

The intensive exploration of theoretical and methodological issues in a selected area of sociology. The topic will be announced in the class schedule issued prior to registration.

Prereq: Departmental permission.

SOC 695 Program Evaluation Skills Development Seminar. Three sem hours

This course offers experience applying the strategies and techniques of evaluation research to specific contexts. Students are apprenticed to university institutes to assist project directors in conducting specific researches.

Prereq: SOC 678 Methods in Social Program Evaluation.

SOC 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly SOC 597, 598, 599)

An intensive study of a problem or group of problems of the sociology faculty.

Prereq: Departmental permission.

ANTHROPOLOGY COURSES

ANT 505 Cultural Anthropology. Two sem hours
Technology, social structure, political institutions, warfare, kinship and the family, religion and magic, art, recreation, and education in the cultures of non-literate peoples. Cultural dynamics; applied anthropology. *Not*

open to students with credit in ANT 135 Introduction to Cultural Anthropology.

ANT 509 Personality and Social Systems. Two sem hours

The cross-cultural study of personality and socio-cultural systems. Attention is paid to modal personality types as these relate to group structure, socialization, and social structure. Individual differences are not studied. *Not open to students with credit in SOC/ANT 309 Culture and Personality.*

Prereq: ANT 135 Introduction to Cultural Anthropology or ANT 505 Cultural Anthropology, SOC 105 Introductory Sociology or SOC 500 Man in Society.

ANT 525 Anthropology of Contemporary Issues. Three sem hours

This course will look at the contributions of anthropology to an understanding of contemporary social issues. The various issues to be examined from a social and cultural perspective include violence; poverty; political, economic, educational and cross-cultural racism; ethnicity; and the role of Western culture on the Third World.

ANT 681 Special Topics in Anthropology. Three sem hours

The content and form of this course will be experimental and vary from year to year. Special topics in anthropology not given in usual course offerings, but of anthropological importance, will be covered. The exact title of the course will be announced in the appropriate schedule.

Prereq: ANT 505 Cultural Anthropology or equivalent.

ANT 697, 698, 699 Independent Study in Anthropology. One, two and three sem hours

Intensive study of an anthropological problem or theory supervised by a member of the anthropology faculty on an individual basis.

Prereq: Departmental permission.

OTHER COURSES

Selected 400-level undergraduate courses in sociology and anthropology may be taken for graduate credit in consultation with the graduate adviser. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.*

If you intend to enroll in any undergraduate course for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

WOMEN'S STUDIES

Margaret A. Crouch
Director
 720 Pray-Harold
 487-1177

The master of liberal studies in women's studies is an interdisciplinary degree administered by the women's studies director. The primary purpose of the program is to promote an understanding of gender roles in contemporary society. The program fosters individual inquiry while providing a number of opportunities for academic development.

PROGRAM OBJECTIVES

The master of liberal studies in women's studies draws upon a range of courses in the College of Arts and Sciences, Business, Education, Health and Human Services, and Technology.

The program leading to the degree is a highly flexible one designed to promote scholarly debate and to develop research skills. It should be helpful to those students seeking employment in business, industry or government at local, state, and federal levels. Persons already employed should find this course of study useful in assisting in their professional advancement. In addition, the program provides a women's studies concentration for those students who intend to pursue a doctoral degree, while also providing preparatory training for those desiring to teach at the secondary, junior college, or community college level.

ADMISSION REQUIREMENTS

Applicants for the M.L.S. in women's studies must have completed a bachelor's degree, but no particular field or major is required.

Applicants must meet both the undergraduate grade point average (2.5) for admission and the grade point average for graduation established by The Graduate School.

Students not meeting regular admission requirements may be admitted on a conditional basis with the approval of the program director. Students not meeting the grade point average requirement may be admitted under non-degree admission (status 1: academic deficiencies) with the permission of the director of the program and The Graduate School. (See Non-Degree Admission Status.)

PROGRAM DESCRIPTION AND DEGREE REQUIREMENTS

It is expected that student will develop competencies through a range of courses elected to fulfill the primary and complementary concentrations in the program. There are three components:

1. primary concentration—12 semester hours;
2. complementary concentration—12 semester hours;
3. capstone experience—six semester hours.

Primary Concentration (12 semester hours)

Six hours required:

- WMS 550 Feminist Thought (3)
 WMS 695 Seminar: Research on Women's Issues (3)

Six hours from the following:

- WMS 543 Language of, by, for and about Women (3)
 WMS 525 Technology, Social Change and the Role of Women (3)
 WMS 542 Women and Mental Health (2)
 WMS 632 The Man-Woman Relationship in Modern Society (2)
 WMS 642 Family in the Middle and Later Years (2)
 SOC 515 Sociology of Women (3)
 WMS 592 Special Topics (3)
 WMS 697, 698, 699 Independent Study/Research (1,2,3)

Complementary Concentration (12 semester hours)

Students must elect at least two concentrations with not less than four semester hours in each concentration.

Capstone Experience (six semester hours)

- WMS 690, 691, 692 Thesis (1,2,3) or
 WMS 686, 687, 688, 689 Practicum in Women's Studies (1,2,3,4) or
 WMS 697, 698, 699 Independent Study/Research (1,2,3)

For the complementary concentration, the areas of concentration include:

Educational Leadership

- EDL 611 Introduction to Adult Education (2)
 EDL 623 Adult Education Administration (2)
 EDL 696 Seminar: Women in Administration (3)

Educational Psychology

- EDP 600 Human Development (2)
 EDP 605 Mental Hygiene (2)
 EDP 631 Measurement and Evaluation (2)
 EDP 677 Research Techniques (2)

History

- HIS 505 Historical Method (3)
 HIS 525 Technology, Social Change and the Role of Women (3)
 HIS 541 The United States, 1825-1860: Ferment and Reform (2)

Human, Environmental and Consumer Resources
HEC 450G Adult Role Transition (3)
HEC 630 Problems in Family and Consumer Economics (2)
WMS 632 The Man-Woman Relationship in Modern Society (2)
WMS 642 Family in Middle and Later Years (2)
HEC 678 Research Methods and Design (3)

Physical Education

PED 505 Basic Statistics (2)
PED 677 Research Techniques (2)

Psychology

WMS 542 Women and Mental Health (2)
PSY 550 Dynamics of Human Behavior (2)
PSY 551 Psychology of Death and Dying (2)
PSY 605 Research Design (3)

Sociology

SOC 515 Sociology of Women (3)
SOC 630 Advanced Social Statistics (3)
SOC 677 Advanced Methods in Sociological Research (3)

WOMEN'S STUDIES COURSES

WMS 525 Technology, Social Change and the Role of Women. Three sem hours
This course will examine the nature and origins of technology, the influence of its historical development from classical to modern times on women in the United States and Europe, and problems stemming from current technological advance.

WMS 542 Women and Mental Health. Two sem hours
Focus on theory and research concerning women's responses to life stresses, women as clients in psychotherapy, and the role of the female mental health professional.
Prereq: One course in psychology.

WMS 543 Language of, by, for and about Women. Three sem hours
A study of women's language; how and why it differs from men's; how it affects writing style; what social effects it has and how it is changing.

WMS 550 Feminist Thought. Three sem hours
Feminist thought provides a scholarly overview of the literature and methodology of feminist studies in such disciplines as history, psychology, literature, sociology, anthropology, economics, religion, health, law, and politics.

WMS 592 Special Topics. Three sem hours
Selected topics.

WMS 630 Problems in Family Finance. Two sem hours
Principles of basic family financial planning, its relationship to economic conditions, social trends, and the family life cycle. Special concern given to procedures in periods of financial emergency. Planning for security and protection against critical family distress.
Prereq: A course in family financial management.

WMS 632 The Man-Woman Relationship in Modern Society. Two sem hours
Consideration of the changes and dynamics of interaction stimulated by emerging shifts in roles of men and women, implications of these changes for the family and society, impact of multiple roles upon various men-women relationships.

WMS 642 Family in the Middle and Later Years. Two sem hours
Individual, family and community planning for the later years of life; developing potentialities; maintaining health; providing reasonable security; building interpersonal relationships. Lectures, field trips, and demonstrations.
Prereq: HEC 622 Family Development.

WMS 686, 687, 688, 689 Practicum in Women's Studies. One, two, three and four sem hours
This course will provide supervised field placement in places suitable to a candidate's career goals including women's centers, women's shelters, personnel and administrative centers in large corporations, neighboring community colleges, and governmental agencies. Paper required.
Prereq: Departmental permission.

WMS 690, 691, 692 Thesis/Final Report. One, two and three sem hours
A substantial and original undertaking in a scholarly research designed to deepen and focus the individual student's interests. The preparation of the thesis will be consistent with the highest professional standards.
Prereq: Departmental permission.

WMS 693, 694, 695, 696 Seminar in Women's Studies. One, two, three and four sem hours
A critical survey of a particular topic which will change from semester to semester.
Prereq: Departmental permission.

WMS 695 Seminar: Research on Women's Issues. Three sem hours
Investigation of research on women in education, work, and families. A culminating experience leading to integration of interdisciplinary research.
Prereq: WMS 550 Feminist Thought.

WMS 697, 698, 699 Independent

Study/Research. One, two and three sem hours
Intensive study of a problem or theory relevant to
women's studies supervised by a member of the women's
studies faculty on an individual basis.

Prereq: Departmental permission.

OTHER COURSES

The following upper division undergraduate course
may be elected for graduate credit. Consult the under-
graduate catalog for descriptions and prerequisites. *A
maximum of nine hours of undergraduate course work
are permitted in the earning of any graduate degree.*

*If you intend to enroll in any undergraduate
courses for graduate credit, you must come to The
Graduate School for written permission before enroll-
ing in the course; otherwise, you will receive under-
graduate credit.*

WMS 479 Special Topics (3)

COLLEGE OF BUSINESS

DEAN: Stewart L. Tubbs
ASSOCIATE DEAN: Elton A. Devine
473 Gary M. Owen Building
487-4140

DEPARTMENTS

Accounting
Finance
Management
Marketing
Operations Research and Information Systems

GRADUATE PROGRAMS IN BUSINESS

Graduate Business Programs Office
401 Gary M. Owen Building
487-4444

The College of Business offers four graduate degree programs which provide professional preparation for management careers: The master of business administration (M.B.A.) degree which is designed to establish a broad understanding of the business function; the master of science in accounting (M.S.A.) degree which is designed to provide an opportunity to specialize in financial management and accounting; the master of science in computer-based information systems (M.S.I.S.) degree designed to provide the basic conceptual framework and tools of analysis necessary to design, develop, implement, and control computer-based information systems; and the master of science in human resource/organizational development (HR/OD) degree designed to provide training for human resource managers and organization development specialists to help them find ways to maximize the contributions of their human resources.

The primary purpose of these programs is to provide high-level, professional education needed to enhance the career opportunities of men and women currently employed in business, industry, and public service positions in southeastern Michigan.

In addition, these programs provide professional preparation required for men and women who contemplate pursuing management careers in business, industry, and government.

GENERAL ADMISSION INFORMATION

Admission to graduate programs in the College of Business will be limited to students showing high promise of success in post-baccalaureate study in business. Various predictive measures of high promise will be used, including (a) the candidate's undergraduate grade point average, or undergraduate grade point average in the last half of the undergraduate study; and (b) the candidate's performance on the Graduate Management Admission Test.*

Graduate Management Admission Test (GMAT) scores more than five years old without active satisfactory graduate matriculation must be retaken and the required minimum score met as stated under each program.

The college may admit candidates who have not yet taken the GMAT on a conditional basis. A conditional-GMAT student must meet the grade point average required for the particular program, is restricted to just foundation courses, and must take the GMAT and achieve the score required within one year of the date of admission.

All application materials should be received by The Graduate School, Starkweather Hall, Eastern Michigan University, Ypsilanti, MI 48197, before June 15 for consideration for fall semester; before September 15 for consideration for winter semester; and before February 15 for consideration for spring/summer sessions.

All applicants for admission must hold either the bachelor's or master's degree from a regionally accredited college or university. Admission to a master's degree program will not be granted until the applicant has completed all degree admission requirements of The Graduate School along with the requirements for the master's degree program selected.

Applicants who hold degrees from foreign colleges or universities must present a Class I or II diploma, or the equivalent thereof. If the applicant's native tongue is not English, a TOEFL (Test of English as a Foreign Language) score of 550 or above, or a score of 85 or above on the MELAB (Michigan English Language Assessment Battery at the English Language Institute, The University of Michigan) is required for admission into a degree program in the College of Business.

1. Applicants with TOEFL scores of 500-549 or MELAB scores of 80-84 must enroll in ESL 642 English as a Second Language for Special Purposes: Business, five semester hours, during their first semester at EMU. The student is also restricted to mathematics deficiency course work or foundation courses until the College of Business language proficiency minimum is attained.
2. If the TOEFL score is below 500 or MELAB is below 80, the student must complete remedial language course work before enrolling in any undergraduate or graduate business course.

After completing either 1. or 2. above, the student must retake the TOEFL and achieve a score of at least 550 or retake the MELAB and achieve a score of at least 85 before being admitted to a business degree program. These scores must be achieved within one calendar year of the student's admission date.

Specific admission requirements for each master's degree program are indicated in the descriptions of the individual programs.

**The Graduate Management Admission Test is offered four times a year at sites throughout the United States and in most other countries. For information and registration materials write: Graduate Management Admission Test, Educational Testing Service, P.O. Box 6101, Princeton, NJ 08541-6101.*

LENGTH OF PROGRAM

The length of time required to complete a business master's degree program depends upon the undergraduate preparation of the student. The program is an evening program (Monday through Thursday). There also is a weekend MBA program available. Students with undergraduate business administration degrees may complete the master's program in less time than students without undergraduate course work in business. Students who

attend full-time will take less time than students who attend part-time.

FOUNDATION/PREREQUISITE REQUIREMENT

Each business master's program has a required common body of knowledge which each student must complete before enrolling in core level graduate courses.

Eastern Michigan University offers a series of 500-level foundation courses, open only to graduate students, which cover most subjects in the common bodies of knowledge. Introductory courses are open to students admitted to any graduate level degree program including non-business programs. These courses cannot count toward core level requirements in any graduate business program.

Once admitted into a graduate business program, graduate students who have not completed basic course work must take foundation courses. The courses may be waived for those who have completed undergraduate equivalents with a "C" or better *prior* to completion of their undergraduate degree, depending upon the accreditation of the undergraduate institution. After admittance to the program, all courses taken, including foundation courses, must be graduate-level, mathematics excepted. Waiver of courses taken after earning a bachelor's degree will be granted only if the course presented as a substitute:

- a. is equivalent to the course being waived;
- b. was taken at an approved accredited four-year institution; and
- c. was passed with a grade of "B" or better.

UPPER LEVEL REQUIREMENTS

Upper level courses are those graduate courses, both required and elective (600 and 515 and above) which provide the 30-33 hours of advanced course work for the graduate degree. These courses are reserved for those students admitted to a graduate business program who have completed *all* foundation/prerequisite requirements. Students must apply for upper-level graduate candidacy through the Graduate Business Programs Office before they can register for upper-level courses.

GRADUATION REQUIREMENTS

Graduate business students must complete all foundation/prerequisite and core level requirements for the program in which they are enrolled, maintaining at least a "B" (3.0) average. The student must also maintain a "B" (3.0) average in the core required courses, which are those courses that must be taken by all students in a particular program, electives not included. Core level courses completed more than six years prior to graduation cannot be applied unless validated by examination. Out-of-date courses in which the students received a grade of "B-" or below must be re-taken.

A maximum of six hours of core level course work may be transferred from other institutions for credit if:

- a. the course is determined to be equivalent to the course to be waived;
- b. it was taken at an AACSB accredited institution; and
- c. was passed with a grade of "B" or better.

DISMISSAL FROM PROGRAM POLICIES

If a graduate student allows his/her GPA to fall below 3.0 ("B"), he/she may be dismissed from the program if after two semesters of enrollment, he/she has not restored the GPA to a 3.0 ("B").

Undergraduate courses that are part of the foundation program must be passed with a minimum grade of "C-." A graduate student may be dismissed from a graduate business program if he/she earns more than two grades below "B-" (2.7) in any of the required foundation and core courses. Should a student repeat a course, the repeated grade will be the grade of record.

FACILITIES

The new Gary M. Owen Building classrooms and lecture halls are equipped with TV monitors. There are special accounting laboratory facilities. The college maintains an information systems laboratory with mini/micro-computer systems and data terminals, some with hard-line connections to the Instructional Computer Center.

M.B.A. (MASTER OF BUSINESS ADMINISTRATION)

William E. Whitmire
 Coordinator of Advising
 401 Gary M. Owen Building
 487-4444

M.B.A. Program Objectives

The M.B.A. is a generalist program with emphasis on practical implementation of business fundamentals. The program is designed to establish a broad understanding of the business function and its relation to society as a whole as well as the effect of social and political forces on business. Students may choose to specialize their studies in a nine credit hour concentration to develop managerial skills in a chosen area of employment.

M.B.A. ADMISSION CRITERIA

Admission to the M.B.A. program is granted to those graduates of regionally accredited colleges and universities whose grades and Graduate Management Admission Test (GMAT) scores indicate an aptitude for advanced study in business. Students are not admitted to the M.B.A. program with a GMAT score below 450.

Degree Admission

The basic standards for degree admission are a 2.5 cumulative undergraduate grade point average (or a 2.75 for the last half of the undergraduate study) and a GMAT score of 450.

Conditional Admission

Conditional admission may be granted to students whose undergraduate grade point averages are below regular admission standards, and whose GMAT scores are correspondingly higher.

Conditionally admitted students must maintain a "B" (3.0) average in foundation courses and the first 12 hours of adviser-approved core courses. Conditionally admitted students must have an appropriate adviser's permission to enroll in foundation and core-level courses and cannot enroll in program electives without adviser approval. Students who successfully meet the probationary requirements will be granted regular admission.

Non-Degree Status

Students holding non-degree student status are not eligible to enroll in undergraduate or graduate business courses.

A guest student who does not seek a degree but wishes to take a few courses, or who wishes to have courses transferred to another institution's graduate program, must meet the standards for regular admission.

M.B.A. PROGRAM REQUIREMENTS**Foundation/Prerequisite Courses (21 credit hours)**

Students must complete course work in each of the following foundation areas unless they have satisfactorily completed an acceptable undergraduate equivalent.

<i>Foundation</i>	<i>Undergraduate Equivalent (hours)</i>
ACC 501 (3)	Principles of Accounting (6)
LAW 503 (3)	Legal Environment of Business (3)
ECO 500 (3)	Principles of Economics (6)
FIN 502 (3)	Principles of Finance (3)
MKT 510 (3)	Principles of Marketing (3)
ORI 502 (3)	Business Information Systems (3)
ORI 503 (3)	Production and Operations Management (3)

Some students may find it necessary to complete a mathematics course in calculus and statistics if they have not taken these in their undergraduate program. Math 504 Mathematics and Statistics for M.B.A.s will satisfy this requirement.

Core Level Requirements (33 credit hours)

The M.B.A. core consists of 33 hours; 24 hours of required courses and 9 hours of electives. The required courses are:

	<i>Tool Core</i>
ORI 605	Managerial Economics (3)
ORI 602	Techniques in Business Research (3)
	<i>Operational Core</i>
ACC 605	Administrative Controls (3)
MGT 604	Communication Management (3)
MGT 605	Organizational Theory and Behavior (3)
MKT 610	Marketing Policies and Problems (3)
FIN 620	Financial Administrative Policies (3)
	<i>Capstone</i>
MGT 696	Management Strategy and Policy (3)*

**Management Strategy and Policy, a capstone case course taken at or near the end of the program, is designed to improve decision-making ability.*

Electives may be distributed among the functional areas of general business or may be used to develop a concentration in accounting, accounting information systems, finance, computer-based information systems, production and operations management, management, organizational development, marketing or international business. *M.B.A. students with an undergraduate degree in business may not select the same area of concentration in their master's program without prior approval of the M.B.A. coordinator.* Students may elect no more than two 500-level electives and must have prior approval of the adviser (*500-level foundation courses may not be used as electives*). Students may, with adviser approval, elect up to six hours of business related graduate credit from outside the College of Business.

M.B.A. students choosing to select a concentration may consider the following tracks:

Accounting Information Systems

ACC 610	Accounting Systems Design and Installation (3)
ACC 620	Advanced Managerial Accounting (3)
ACC 448G	EDP Auditing and Controls (3)

Financial Accounting

ACC 615	Corporate Financial Reporting (3)
ACC 665	Theory of Accounting (3)
ACC 667	Professional Auditing (3)

Tax Accounting

ACC 585	Business Tax Planning (3)
ACC 672	Estate Tax Planning (3)
ACC 695	Seminar in Accounting (3)

Finance

FIN 615	Business Financial Markets (3)
FIN 625	Securities Analysis (3)
FIN 660	Advanced Financial Management (3)

International Business (select nine hours)

MKT 520	International Business (3)
FIN 540	International Finance (3)
MGT 550	International Management (3)

- ACC 675 International Accounting
Decision Science (select nine hours)
- ORI 603 Quantitative Methods I (3)
Two of the following:
- ORI 604 Quantitative Methods II (3)
ORI 636 Forecasting Models (3)
ORI 638 Simulation and Modeling (3)
ORI 640 Operations Management (3)
- Marketing (select nine hours)
- MKT 630 Sales Operation Management (3)
MKT 640 Promotions Management (3)
MKT 650 Channels of Distribution and Logistics (3)
MKT 665 Seminar in Buyer Behavior (3)
MKT 670 Advanced Methods in Marketing
Research (3)
- MKT 675 Market Planning and Forecasting (3)
- Organizational Development (select nine hours)
- MGT 601 Diagnostic and Quantitative Methods in
Organizations (3)
- MGT 602 Theory and Techniques of Organizational
Development (3)
- MGT 615 Organization Design and Strategy (3)
MGT 628 Human Resource Development (3)
MGT 638 Improving Quality of Worklife (3)
MGT 648 Communication and Organizational
Development (3)
- Human Resource Management (select nine hours)
- MGT 609 Human Resource Management (3)
MGT 618 Staffing Organizations (3)
MGT 620 Compensation Management (3)
MGT 625 Management in Unionized Settings (3)
MGT 628 Human Resource Development (3)
- Information Systems Management (select nine
hours)
- ORI 510 Programming and Data Structures (3)
ORI 614 Analysis and Design (3)
ORI 620 Data Networks (3)
or
- ORI 624 Computer Resources Management (3)
- Information Systems Design
- ORI 510 Programming and Data Structures (3)
ORI 614 Systems Analysis and Design (3)
ORI 645 Database Management Systems (3)

Electives may be taken at any time during the core phase of the program as long as prerequisites are met.

M.S.A. (MASTER OF SCIENCE IN ACCOUNTING)

Mohsen Sharifi
Department Head

Thomas Cianciolo
Coordinator of Advising
406 Gary M. Owen Building
487-3320

The M.S.A. program is designed to establish an in-depth understanding of theoretical and practical accounting concepts beyond the level attained in the bachelor's degree.

M.S.A. ADMISSION CRITERIA

Degree Admission

Academic performance, Graduate Management Admission test score* and work experience are significant factors considered by the M.S.A. Program Committee as a part of the admission process. As a minimum for regular admission, the applicant must have an undergraduate grade point average of 2.8 overall (on a 4.0 scale) or 3.0 in the last half of undergraduate course work and a GMAT score of 450.

In addition, each applicant must submit two letters of recommendation to the chairman of the M.S.A. Program Committee. One of the letters should come from a college level instructor and the other from a past or present employer. The committee will also consider any other information that the applicant may care to supply (e.g., extracurricular activities).

Conditional Admission

Conditional admission also is possible for some applicants who do not meet the GPA criteria for regular admission. The applicant should contact the chairman of the M.S.A. Program Committee in the Department of Accounting to discuss this form of admission.

Students holding non-degree student status are not eligible to enroll in undergraduate or graduate business courses.

**The Graduate Management Admission Test should be taken at the earliest convenient date to avoid delays in the processing of one's application to the M.S.A. program.*

M.S.A. PROGRAM REQUIREMENTS

Program Design

Upon admission to the M.S.A. program, each student is required to prepare a total program of course work leading to the M.S.A. degree. The program is reviewed with the student by the M.S.A. Program Committee (or its representative) to ascertain that the

program is suitable for the student's background and career goals. The program of course work becomes the student's degree requirement when accepted by the student and the M.S.A. Program Committee. Subsequent changes in course work must be approved by the M.S.A. Program Committee.

Foundation/Prerequisite Courses (33 credit hours)

Students must complete course work in each of the following foundation areas unless they have satisfactorily completed the undergraduate equivalent.

Foundation	Undergraduate Equivalent
ACC 501 (3)	Principles of Accounting (6)
FIN 502 (3)	Principles of Finance (3)
MKT 510 (3)	Principles of Marketing (3)
ORI 502 (3)	Business Information Systems (3)
LAW 503 (3)	Legal Environment of Business (3)
ECO 500 (3)	Principles of Economics (6)
ORI 503 (3)	Production and Operations Management (3)

In addition the student must complete the following:

ACC 340	Intermediate Accounting I (3)
ACC 341	Intermediate Accounting II (3)
ACC 342	Managerial Cost Accounting (3)
MGT 490	Business Policy* (3)

**To be taken upon completion of the foundation/prerequisite program.*

Some students may find it necessary to complete a mathematics course in calculus and statistics if they have not taken these in their undergraduate program. Math 504 Mathematics and Statistics for M.B.A.s will satisfy this requirement.

Core Courses (30 credit hours)

The M.S.A. program requires the completion of 30 semester hours of course work divided into required core courses and elective courses as follows:

Required Core Courses (21 hours)

ACC 610	Accounting Systems Design and Installation (3)
ACC 615	Corporate Financial Reporting (3)
ACC 620	Advanced Managerial Accounting (3)
ACC 665	Theory of Accounting (3)
ACC 695	Seminar in Accounting (Tax Research) (3)
MGT 605	Organizational Theory and Behavior (3)
ORI 602	Techniques in Business Research (3)

Electives (9 hours)*

ACC 544	International Taxation and Accounting (3)
ACC 585	Business Tax Planning (3)
ACC 667	Professional Auditing (3)
ACC 672	Estate Tax Planning (3)
ACC 699	Independent Study (3)
ACC 448G	EDP Auditing and Controls (3)
ACC 650	Internal Auditing (3)
ACC 675	International Accounting (3)

**Three hours in accounting must be taken from this*

list. The other six hours may be taken in other areas subject to the M.S.A. coordinator's approval.

NOTE: Students wishing to take the CPA examination should be sure to elect an auditing course (ACC 667 Professional Auditing) and a governmental accounting course.

Courses may be elected from other fields with the advice and consent of the program adviser.

M.S.I.S. (MASTER OF SCIENCE IN COMPUTER BASED INFORMATION SYSTEMS)

V. M. Rao Tummala
Department Head
Coordinator of Advising
412 Pray-Harrold
487-2454

The M.S.I.S. is a program of study for students seeking a solid background in systems analysis, management of computer related activities, design of information systems, modeling and simulation, and database management.

The emphasis is on information systems and not computer science.

M.S.I.S. ADMISSION CRITERIA

Admission to the M.S.I.S. program is granted to those graduates of regionally accredited colleges and universities whose grades and Graduate Management Admission Test (GMAT) scores indicate an aptitude for advanced study in computer-based information systems.

Degree Admission

Degree admission will be granted to students who have completed the GMAT with a score of 450 or higher and who have either (a) a cumulative undergraduate grade point average of 2.75; or (b) an undergraduate grade point average of 3.0 for the last half of the undergraduate study.

Conditional Admission

Students whose undergraduate grade point average is above 2.5 but below the 2.75 requirements may qualify for conditional admission.

Conditionally admitted students must maintain a "B" (3.0) average in foundation and the first 12 hours of adviser-approved core courses. Students who successfully meet the probationary requirements will be granted regular admission.

Non-Degree Student Status

Students holding non-degree student status are not eligible to enroll in undergraduate or graduate business courses.

Foundation/Prerequisite Courses (27 credit hours)

Students must complete course work in each of the following foundation areas unless they have satisfactorily completed the undergraduate equivalent.

<i>Foundation</i>	<i>Undergraduate Equivalent</i>
ORI 565 (3)	Applied Statistical Linear Models (3)
ORI 510 (3)	Programming and Data Structures
ACC 501 (3)	Principles of Accounting (6)
FIN 502 (3)	Principles of Finance (3)
ECO 500 (3)	Principles of Economics (6)
LAW 503 (3)	Legal Environment of Business (3)
MKT 510 (3)	Principles of Marketing (3)
ORI 503 (3)	Production and Operations Management (3)
MGT 490 (3)	Business Policy* (3)

Some students may find it necessary to complete a mathematics course in calculus and statistics if they have not taken these in their undergraduate program.

**To be taken upon completion of the foundation/prerequisite courses.*

Core Courses (30 credit hours)

The M.S.I.S. requires a minimum of 30 hours of course work in addition to any foundation or prerequisite course requirements. The program consists of the following:

Required Core in Information Systems (27 hours)

All M.S.I.S. students must take each of the following courses:

ORI 610	Programming and Language Design (3)
ORI 614	Systems Analysis and Design (3)
ORI 620	Data Networks (3)
ORI 624	Computer Resources Management (3)
ORI 625	Software Engineering Management (3)
ORI 645	Database Management Systems (3)
ORI 655	Expert Systems in Business (3)
ORI 696	Systems Development Projects (3)
MGT 605	Organizational Theory and Behavior (3)

Restricted Elective* (3 hours)

Select one course from the following:

ORI 604	Quantitative Methods II (3)
ORI 630	Linear Programming and Extensions (3)
ORI 636	Forecasting Models (3)
ORI 640	Operations Management (3) or other approved 600-level College of Business courses.

ORI 601, 602 and 603 may not be included in the program of study.

M.S. HR/OD (MASTER OF SCIENCE IN HUMAN RESOURCE MANAGEMENT AND ORGANIZATIONAL DEVELOPMENT)

Raymond E. Hill
 Department Head
 Coordinator of Advising
 466 Gary M. Owen Building
 487-2468

In recent years, growing emphasis on human resource management and organizational development has emerged in all types of organizations. Instead of concentrating only on the financial, the material and the mechanical aspects of the productive organization, attention has been increasingly directed toward developing human assets. Production and service oriented businesses, governmental agencies at all levels, health care institutions, volunteer service associations and professional firms of all types have become increasingly sensitive to the human resource potential in their organizations.

Part of this trend has been stimulated by the demands of an ever changing environment in which businesses must function. In addition, a new, more socially aware, generation of managers and employees are looking for more than material rewards from their work. Another part of this emphasis stems from the pragmatic recognition that at the organizational level there should be concern for establishing a climate of problem solving around shared goals. As businesses look for new strategies to increase their competitive edge, they will look to trained human resource managers and organizational development specialists to help them find ways to maximize the contributions of their human resources.

Goals of the HR/OD Program

To prepare professionals who will understand and be able to plan, implement and manage change processes whether the position is internal to an organization (managerial or staff support) or as an external consultant.

- To prepare professionals who will understand the need of a match between organizational and human resource needs and be able to implement systems related to structure, process and human resources.
- To prepare professionals who can understand and apply human resource and organizational development techniques.
- To prepare professionals who recognize the interrelationships among the fields of human resource management and organizational development and because of this recognition can use HR to improve OD and OD to improve HR.
- To contribute to the knowledge base of behavioral and organizational theory and practice.
- To provide the community with access to the expertise of faculty and students.

HR/OD ADMISSION CRITERIA

Degree Admission

Applications for admission to the HR/OD program must be received in The Graduate School Office and reviewed by the HR/OD Advisory Committee. Criteria for possible degree admission to the HR/OD program include:

1. **GPA Requirement:** You must have either
 - (a) a cumulative undergraduate grade point average of 2.75 (on a 4.0 scale); or
 - (b) a grade point average of 3.0 for the last half of undergraduate study; or
 - (c) a 3.5 cumulative grade point average from a completed master's degree program.
2. **GMAT Requirement:** You must have completed the Graduate Management Admission Test with a score of 450 or higher.
3. **Letter of Application Requirements:** You must send a letter to the director of the HR/OD program (care of the Management Department) describing your
 - (a) reasons for choosing the organizational development field;
 - (b) previous relevant work experience (volunteer or professional);
 - (c) previous relevant educational experience; and
 - (d) career goals.
4. **Interview Requirement:** You must arrange an interview with an HR/OD faculty member.

Admission will not be denied on the basis of the interview, but the interview must be completed before admission will be granted. The purpose is to provide a realistic preview of the HR/OD program and to clarify the expectations of potential students of our program.

Conditional Admission

Conditional admission may be granted to those students whose grade point average and GMAT scores combine in a manner that exceeds our minimum index formula criteria. This criteria is a score of 1,000 using an applicant's undergraduate grade point average, and 1,150 using grade point average from a completed master's degree program. The index formula is 200 times the GPA plus the GMAT score. Applicants must score at least 410 on the GMAT to be eligible for conditional admission and must also satisfy items 3. and 4. as described under the regular admission criteria.

Conditionally admitted students must maintain a "B" (3.0) average in foundation courses and the first 12 hours of adviser-approved core courses. Students who successfully meet the conditional requirements will be granted regular admission. Conditionally admitted students must have an adviser's permission to enroll in courses.

Non-Degree Student Status

Students holding non-degree student status are not eligible to enroll in undergraduate or graduate business courses.

Foundation/Prerequisite Courses (27 credit hours)

<i>Foundation</i>	<i>Undergraduate Equivalent (hours)</i>
ORI 501 (3)	Introductory Probability and Statistics for Business (3)
ACC 501 (3)	Principles of Accounting (6)
FIN 502 (3)	Principles of Finance (3)
ECO 500 (3)	Principles of Economics (6)
ORI 502 (3)	Business Information Systems (3)
ORI 503 (3)	Production and Operations Management (3)
MKT 510 (3)	Principles of Marketing (3)
LAW 503 (3)	Legal Environment in Business (3)
MGT 490 (3)	Business Policy (3)

Core Courses (30 credit hours)

Students may elect a human resource management or organizational development specialization track within the HR/OD program. Both tracks consist of a core of 30 hours of required courses. Core courses required for all students include:

MGT 601	Diagnostic and Quantitative Methods in Organization (3)
MGT 602	Theory and Techniques of Organizational Development (3)
MGT 605	Organizational Theory and Behavior (3)
MGT 609	Human Resource Management (3)
MGT 688	Practicum in Human Resource Management/Organizational Development (3) or
MGT 690, 691, and 692	Thesis (6)

Students will elect to pursue either the human resources or organizational development track.

The courses for the human resources management track are:

MGT 618	Staffing Organizations (3)
MGT 628	Human Resource Development (3)
MGT 620	Compensation Management (3)
MGT 625	Management in Unionized Settings (3)

The courses for the organizational development track are:

MGT 615	Organization Design and Strategy (3)
MGT 628	Human Resources Development (3)
MGT 638	Quality of Work Life (3)
MGT 648	Communication and O.D. (3)

1. Students who have successfully completed an undergraduate course in human resources management/personnel administration or equivalent should substitute an elective for MGT 609 Human Resource Management.
2. Students who elect the six hour thesis in place of MGT 688 will take only four of five electives.
3. The fifth elective should be selected in consultation with the HR/OD adviser. Generally MGT 694 Strategy and Policy is recommended.

ACCOUNTING

Mohsen Sharifi
Department Head
 406 Gary M. Owen Building
 487-3320

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

Accounting Classes

ACC 501 Accounting Principles. Three sem hours
 For students who have not had undergraduate accounting. Introductory course in accounting principles and techniques used to measure business transactions and to prepare financial statements. *Required of graduate students who have not completed a minimum of six hours of basic accounting.*

ACC 544 International Taxation and Accounting. Three sem hours
 International accounting problems; the interaction of tax laws of the United States and selected foreign countries.

ACC 585 Business Tax Planning. Three sem hours
 Covers the taxation of corporation income retirement plans, mergers and other corporate reorganizations, transfers, and liquidation.
Prereq: A basic income tax course (ACC 344 Tax Accounting), or departmental permission.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

ACC 605 Administrative Controls. Three sem hours
 Areas covered include cost analysis, cost allocation to profit and investment centers, profit planning, cash flow analysis, inventory control, control of decentralized operations. Both text and cases are used. *Not open to those students who have taken a cost accounting course.*

ACC 610 Accounting System Design and Installation. Three sem hours
 Provides the fundamentals of developing and analyzing accounting systems to produce efficient recording, optimum data processing procedures and appropriate analysis and interpretation for management. Case studies are used.
Prereq: ACC 605 Administrative Controls or ACC 620 Advanced Managerial Accounting.

ACC 615 Corporate Financial Reporting. Three sem hours
 Study of authoritative pronouncements on accounting principles which guide reporting financial position, results of operations and changes in fund flows. May include case studies or analysis of published financial reports.
Prereq: Six hours of intermediate accounting.

ACC 620 Advanced Managerial Accounting. Three sem hours
 Covers concepts of management control through accounting, accounting for organizational objectives, profit and investment centers, budgeting, project planning and control.
Prereq: Satisfy requirements for ACC 605 Administrative Controls.

ACC 650 Internal Auditing. Three sem hours
 Introduction to the profession of internal auditing. Includes professional standards, techniques, scientific methods, reporting, operational auditing, and internal audit management.
Prereq: ACC 501 Accounting Principles or permission of instructor.

ACC 665 Theory of Accounting. Three sem hours
 A study of the objectives, history and development of financial accounting theory; introduces advanced accounting problems in the areas of inventory accounting, intangibles, consolidations, partnership accounting, leases, pensions and prior period adjustments. ACC 665 is a capstone course which integrates the theoretical concepts and practical applications of the accounting discipline.
Prereq: ACC 615 Corporate Financial Reporting or six hours of intermediate accounting with departmental permission.

ACC 667 Professional Auditing. Three sem hours
 A study of auditing concepts, objectives and procedures, and of the literature as it relates to current audit problems.
Prereq: ACC 615 Corporate Financial Reporting or six hours of intermediate accounting.

ACC 672 Estate Tax Planning. Three sem hours
 Study of the federal taxation of estates, gifts and trusts, particularly as they affect family financial planning, and the preparation of federal estate tax, gift tax and fiduciary tax returns.
Prereq: A basic income tax course (ACC 344 Tax Accounting).

ACC 675 International Accounting. Three sem hours
Introduction to accounting in an international environment. Includes the study of environmental factors, performance evaluation, financial reporting and specific accounting and auditing problems.

Prereq: ACC 605 Administrative Controls or permission of instructor.

ACC 695 Seminar in Accounting. Three sem hours
Study of selected problems in accounting. A contemporary issue seminar.

Prereq: ACC 615 Corporate Financial Reporting or departmental permission.

ACC 699 Independent Study. Three sem hours
Directed study or problems in accounting not otherwise treated in department courses.

Prereq: Completion of M.S.A. or M.B.A. tool core and departmental permission.

FINANCE

Asrat Tessema
Department Head
404 Gary M. Owen Building
487-1232

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

FIN 502 Financial Principles. Three sem hours
(Formerly FIN 492)

Course provides an introduction to finance. Non-finance majors will gain an appreciation of the role of financial markets and institutions in our economy, and the responsibilities, concerns and methods of analysis employed by corporate financial managers. Students pursuing a concentration in the finance area should view this as a first course in corporate finance and an introduction into investments, financial markets and institutions.

FIN 540 International Finance. Three sem hours

The course covers international aspects of financial investment, capital budgeting, risk analysis, joint ventures and acquisitions, forecasting and protecting against exchange rate changes, capital structure problems of multinational corporations, methods of financing, banking and financial reporting.

Prereq: FIN 502 Financial Principles.

INS 586 Risk and Risk Management. Three sem hours

Study of the nature of risk and the principles and methods used in risk management. Emphasis on use of insurance in handling business risks.

Prereq: FIN 502 Financial Principles.

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FIN 615 Financial Markets and Institutions. Three sem hours

Course provides an analytical foundation for understanding the need for, and characteristics of financial markets. The role of commercial banks and non-bank financial intermediaries is developed in the broader context of the saving-investment process in an economy.

Prereq: FIN 502 Financial Principles.

FIN 620 Financial Administration**Policies.****Three sem hours**

The course uses the case method of instruction to focus on problems in corporate financial management. The analysis of financial decisions and the formulation of financial policy are stressed. The course covers working capital management, capital budgeting and financing. Special topics include investment banking, mergers and acquisitions, and leasing.

Prereq: FIN 502 Financial Principles.

FIN 625 Securities Analysis.**Three sem hours**

This course addresses the major issues of interest to investors and portfolio managers including the optimal allocation of wealth among assets, the valuation of risky assets and the measurement of investment performances of various financial instruments, such as common stocks bonds, convertibles and options.

Prereq: FIN 502 Financial Principles.

FIN 660 Advanced Financial Management.**Three sem hours**

This course develops conceptual foundations for making intelligent corporate financial analysis. Advanced concepts in modern corporate finance are examined including issues arising from risky corporate debt, the theory of optimal capital structure, agency theory and economic effects of taxation. Special topics include raising external capital, dividend policy and share repurchases.

Prereq: FIN 620 Financial Administration Policies.

FIN 681 Special Topics in Finance.**Three sem hours**

An in-depth study of a specialized area in finance.

Prereq: FIN 620 Financial Administration Policies.

FIN 699 Independent Study.**Three sem hours**

Directed study of problems in finance not otherwise treated in department courses.

Prereq: Departmental permission.

MANAGEMENT**Raymond E. Hill****Department Head****466 Gary M. Owen Building****487-3240****OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION****MGT 501 Management: Concepts, Principles and Practice.****Three sem hours**

The basic managerial functions are studied primarily from the perspective of the process design, but the behavioral, management science and other disciplinary schools of thought are also carefully examined. *Open only to graduate students who have not had a basic management course.*

MGT 550 International Management:**A Cultural Perspective.****Three sem hours**

This course will examine management practices within the international business environment, both from individual national perspectives and from the global perspective of the multinational corporation.

Prereq: MGT 501 or instructor's permission.

MGT 567 Business Communication: Specialized Organizational Report Writing.**Three sem hours**

Course to train students (already admitted to a graduate degree program) to write reports suited to organizational needs and environments. Provides professional and managerial focus on designing reports for business, industry, education, health care, and government. Develops skills in design, editing, and analysis of reports.

MGT 568 Managerial**Communication.****Three sem hours**

A survey of the research and literature to familiarize the student with theory, concepts, and methods relevant to administrative communication.

Prereq: Graduate student and one course in management.

MGT 576 Corporate Social Policy.**Three sem hours**

A study of interaction between business organizations and their economic, political, social, and legal environments. Ethical issues relevant to corporate decision-making will be the focus of the analysis of social policy.

MGT 580 Management of Organizational Behavior. Three sem hours
A survey and synthesis of behavioral science theories relevant to management of business and non-business organizations. *This course is not open to students enrolled in a College of Business program.*
Prereq: MGT 501 Management: Concepts, Principles and Practice or equivalent.

MGT 592 Special Topics in Management. Three sem hours
Selected topic(s) from the field of management.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

MGT 601 Diagnostic and Quantitative Methods in Organizations. Three sem hours
The study and application of diagnostic and quantitative methods for problem diagnosis, implementation, and evaluation of the organizational development process and human resource management practices.
Prereq: MGT 605 Organizational Theory and Behavior, ORI 501 Introductory Probability and Statistics for Business.

MGT 602 Theory and Techniques of Organizational Development. Three sem hours
This class examines the theoretical basis of the field of organizational development. Change interventions at the individual, group, and organizational level are covered along with consultation skills.
Prereq: MGT 605 Organizational Theory and Behavior.

MGT 604 Management Communication Theory and Practice. Three sem hours
A survey of the research and literature to familiarize the student with theory, concepts, and methods relevant to administrative communication.
Prereq: Graduate student and one course in management.

MGT 605 Organizational Theory and Behavior. Three sem hours
The objective is to apply social science concepts to organizational structure and design. Case studies are used to relate theory and behavior.

MGT 609 Human Resource Management. Three sem hours
Current activities and theory relevant to human resource management function are described, including impact of changes related to government intervention and other environmental impacts.

MGT 615 Organization Design and Strategy. Three sem hours
To provide in-depth understanding of organizations' ability to survive, grow and adapt in relation to internal and environmental pressures. Analytical and problem skills are practiced also in such areas as structure, conflict, strategy and use of power.
Prereq: MGT 605 Organizational Theory and Behavior and MGT 602 Theory and Techniques of Organizational Development.

MGT 618 Staffing Organizations. Three sem hours
This course will train students to staff organizations. Students will obtain skills in human resource planning, recruitment, job analysis, selection techniques and evaluation (validation).
Prereq: MGT 609 Human Resource Management.

MGT 620 Compensation Management. Three sem hours
Study of the concepts and practices of compensation administration with emphasis on current theories of compensation and motivation.
Prereq: MGT 605 Organizational Theory and Behavior and MGT 609 Human Resource Management.

MGT 625 Management in Unionized Settings. Three sem hours
Presents the background necessary to examine top management strategic decision-making regarding unions as well as day-to-day union worker-management interaction and introduces methods and skills necessary for change in management-union relationships.
Prereq: MGT 605 Organizational Theory and Behavior and MGT 609 Human Resource Management.

MGT 628 Human Resource Development. Three sem hours
Course is designed to educate students in training needs analysis and program design, implementation of training programs, training evaluation procedures, human resource cost effectiveness plans, job design techniques.
Prereq: MGT 605 Organizational Theory and Behavior and MGT 609 Human Resource Management or equivalent.

MGT 638 Improving the Quality of Work-life. Three sem hours
A historical overview and consideration of the newly developed field of organizational development in the private and public sectors as a means of increasing employee satisfaction and productivity in the work place.
Prereq: MGT 605 Organizational Theory and Behavior.

MGT 648 Communication and Organizational Development. Three sem hours
The development of communication understanding and skills as required in organizational management and interaction by internal and external change agents.
Prereq: A course in communication or departmental permission.

MGT 681 Special Topics in Management. Three sem hours
Selected topic(s) from the field of management.

MGT 688 Practicum in Human Resource Management/Organizational Development. Three sem hours
The opportunity to participate in a human resource management and/or organizational development project in an active organization under the close guidance of a practicing consultant. *Students who have credit in MGT 690, 691 or 692 Master's Thesis in Organizational Development may not take this course.*
Prereq: MGT 605 Organizational Theory and Behavior, MGT 628 Human Resource Development and MGT 648 Communication and Organizational Development.

MGT 690, 691, 692 Master's Thesis in Human Resource Management/Organizational Development. One, two and three sem hours
Students will develop and defend an original research proposal in the area of human resource management and/or organizational development, collect and analyze data, and prepare and defend a written report of their findings. *Students who have credit in MGT 688 Practicum in Human Resource Management/Organizational Development may not take this course.*
Prereq: Departmental permission.

MGT 694 Human Resource Management/Organizational Development Strategy and Policy. Three sem hours
The development of integrated human resource management and organizational development policies and strategies and application to both live and written case studies.
Prereq: Completion of all the HRM/OD core.

MGT 695 Seminar in Management. Three sem hours
A study of selected management issues and problems. Specific topics vary from term to term.
Prereq: MGT 605 Organizational Theory and Behavior.

MGT 696 Management Strategy and Policy. Three sem hours
The development of overall strategy and supportive policies of the firm operating under competitive conditions,

from the point of view of general management. Improvement of decision-making skills through case analyses of actual situation. Offered fall and winter semesters only.
Prereq: Completion of M.B.A. operational and tool core.

MGT 699 Independent Study. Three sem hours
An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: M.B.A. or HR/OD core, MGT 605 Organizational Theory and Behavior and departmental permission.

MARKETING

H. Robert Dodge
Department Head
469 Gary M. Owen Building
487-3323

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

MKT 510 Marketing. Three sem hours
The development of skills in the analysis and resolution of management problems related to the marketing process; economic, psychological and sociological characteristics of demand for various products; marketing research; channels of distribution; advertising; personal selling; pricing policies and regulation of marketing. *Open only to graduate students who have not had a basic marketing course.*

MKT 520 International Business. Three sem hours
Analysis of the global economic, political, cultural and geographic environments and their impact on market entry. Strategies of multi-national firms and survey of changes in marketing, finance, human resources and production policies resulting from international environmental differences.
Prereq: MKT 510 Marketing or equivalent.

MKT 592 Special Topics in Marketing. Three sem hours
The courses involve daily visitations to various types of domestic and/or foreign business enterprises where discussions are held in seminars concerning marketing and other business affairs. Subsequent seminar sessions are held by the instructor at a classroom arranged prior to the trip.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

MKT 610 Marketing Policies and Problems. Three sem hours
Analysis of current marketing problems and their implications relative to the firm's marketing mix and external economic, social, cultural, legal and political environments. Offered fall and winter semesters only.
Prereq: MKT 510 Marketing or equivalent.

MKT 630 Sales Operation Management. Three sem hours
An intensive investigation of the sales function and its relationship to the total marketing program. Topics considered include setting sales objectives, formulation of sales strategy, development of sales organization,

relationships with distributors and dealers, public policy as it relates to the sales function, analytical tools for forecasting sales, qualitative and quantitative measures of sales performance, control of sales operations and integration of sales and other marketing functions. Reviews of the literature in the sales field and cases stressed.
Prereq: MKT 610 Marketing Policies and Problems.

MKT 640 Promotions Management. Three sem hours
An integrative decision oriented course emphasizing the strategic function of an effective program of corporate promotions employing mass communications, personal selling, sales promotion, publicity, and public relations.
Prereq: MKT 610 Marketing Policies and Problems.

MKT 650 Channels of Distribution and Logistics. Three sem hours
Identification and analysis of problems involved in the development and operation of channels of distribution. Issues of trade structure and methods of cooperation among channel members are discussed from legal and managerial points of view. Specific analytical tools are developed for the individual firms in analyzing spatial arrangements of markets, plant and warehouse location, inventory systems, and selections of carrier alternatives. Lecture, discussion and cases.
Prereq: MKT 610 Marketing Policies and Problems.

MKT 665 Seminar in Buyer Behavior. Three sem hours
A seminar devoted to the study of consumer and industrial buying behavior. Emphasis is given to the exploration and understanding of appropriate theories, measurement techniques, and applications of theory to marketing strategy.
Prereq: MKT 510 Marketing.

MKT 670 Advanced Methods in Marketing Research. Three sem hours
This course outlines the application of research methods to aid in marketing decision making. Included are approaches to problem definition, secondary data review, questionnaire development, data collection, data analysis and managerial interpretation, and the reporting of research findings. This course will also provide a detailed look at a computer-based statistical package (e.g., SPSS-X).
Prereq: MKT 610 Marketing Policies and Problems.

MKT 675 Market Planning and Forecasting. Three sem hours
Development of student skills and techniques for strategic marketing planning and forecasting. Concepts relating to the mission, opportunity analysis, objectives, goals, and programs will be explored. Individual planning and forecasting projects and exercises will be emphasized.
Prereq: MKT 610 Marketing Policies and Problems.

MKT 681 Special Topics in Marketing. Three sem hours
Selected topic(s) from the field of marketing.
Prereq: MKT 610 Marketing Policies and Problems.

MKT 695 Seminar in Marketing. Three sem hours
The purpose of this seminar is to develop both an understanding of and a point of view toward some of the major problems of marketing which are dealt with briefly or not at all in required course work. Topics vary from year to year in accordance with the needs and interests of the students.
Prereq: MKT 610 Marketing Policies and Problems.

MKT 699 Independent Study. Three sem hours
An intensive study of a problem under the direction of graduate faculty members.
Prereq: MKT 610 Marketing Policies and Problems.

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

LAW 503 Legal Environment of Business. Three sem hours
The nature and operation of the American legal system; legal constraints on business activities. Law as an expression of social and political forces and as an instrument of economic and political change. *Not open to students having had LAW 293 Legal Environment of Business.*

LAW 530 Modern Commercial Law. Three sem hours
Designed for students desiring a detailed knowledge of modern business law. Provisions of the Uniform Commercial Code are emphasized. Aspects of the law of sales, negotiable instruments including effects of different endorsements, secured transactions, commercial financing and bankruptcy, bailments, bills of lading and letters of credit.
Prereq: Previous credit in law.

LAW 595 Seminar in Business Law. Three sem hours
A study of selected business law issues and topics which may vary from term to term.
Prereq: LAW 503 Legal Environment of Business or equivalent.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

LAW 699 Independent Study. Three sem hours
Students select a problem or group of problems to be researched or studied in depth under the direction of a designated faculty member.
Prereq: Departmental permission.

OPERATIONS RESEARCH AND INFORMATION SYSTEMS

V. M. Rao Tummala
Department Head
412 Gary M. Owen Building
487-2454

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

ORI 501 Introductory Probability and Statistics for Business. Three sem hours
The development of fundamental probability concepts and statistical techniques emphasizing their applications to business decision-making. Includes the study of probability distributions, sampling, point and interval estimation, and hypothesis testing.
Prereq: MTH 118 Mathematical Analysis for Social Sciences I and MTH 119 Mathematical Analysis for Social Sciences II or equivalent.

ORI 502 Business Information Systems. Three sem hours
This course is an introduction to concepts of information, business problem components and systems, computers and tools available for problem solving on computers. In addition, analysis of requirements for business information systems, design and implementation are studied. A high level programming language is used for implementation. Prior experience in a language is not required.
Prereq: MTH 118 Mathematical Analysis for Social Science I.

ORI 503 Production and Operations Management. Three sem hours
Coverage of the design, operation and control functions in manufacturing and service organizations. Topics include product design, process design, facilities location and layout, capacity planning, job design, product scheduling, material management, and process control.
Prereq: ORI 501 Introductory Probability and Statistics for Business or equivalent.

ORI 565 Applied Linear Statistical Models. Three sem hours
An introduction to linear models with an emphasis on business applications. Topics include multiple linear regression models, analysis of variance and multivariate data analysis. Computer packages will be used. Projects and written reports are required. *Not open to students with credit in ORI 465 Applied Linear Statistical Models.*
Prereq: ORI 265 Business Statistics I or ORI 501 Introductory Probability and Statistics for Business.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

ORI 601 Managerial Economics. Three sem hours
Application of economic theory to problems facing business management. Emphasis on economics as a business tool that facilitates decision making. Topics considered include optimization techniques, uncertainty, demand, production, cost, and anti-trust economics. *Not applicable to M.S.I.S. degree.*

Prereq: ORI 501 Introductory Probability and Statistics for Business or equivalent and ECO 501 Macroeconomic Theory and Policy, ECO 502 Microeconomic Theory and Practice or equivalent.

ORI 602 Techniques in Business

Research.

Three sem hours

This course is a review and extension of statistical techniques used by business people to collect and analyze data for making business decisions. Includes sampling techniques, correlation analysis, regression modeling, analysis of variance, and non-parametric statistics. Computer packages and written report. *Not applicable to M.S.I.S. degree.*

Prereq: ORI 501 Introductory Probability and Statistics for Business and ORI 502 Business Information Systems or equivalent.

ORI 603 Quantitative Methods I. Three sem hours
Business decision making, complex problems of the modern business enterprise. Quantification and measurement, statistical decision making, linear programming, game theory, inventory control, replacement decisions and various techniques of statistical optimization. *Not applicable to M.S.I.S. degree.*

Prereq: ORI 501 Introductory Probability and Statistics for Business and ORI 502 Business Information Systems or equivalent.

ORI 604 Quantitative Methods II. Three sem hours
Transportation networks, queuing theory, Bayesian inference, regression and correlation analysis, in addition to various discrete mathematical programming topics of contemporary interest.

Prereq: ORI 603 Quantitative Methods I or departmental permission.

ORI 610 Computers and Algorithms.

Three sem hours

This class introduces students to formal methods of defining and describing computer systems and hardware. Practical applications of the formal techniques are emphasized.

Prereq: ORI 315 Applied Data Structures, ORI 502 Business Information Systems.

ORI 614 Systems Analysis. Three sem hours
Introduces systems analysis as a discipline and attempts to identify the role of the systems analyst in the analysis and synthesis of computer-based systems. Introduces various systems analysis techniques supplemented by discussion of various systems application areas. Outside speakers may give presentations.

Prereq: ORI 219 COBOL Programming, ORI 502 Business Information Systems.

ORI 620 Data Networks.

Three sem hours

Fundamental concepts and techniques needed in the design of data transmission networks. The emphasis will be on the techniques needed in analysis of the system and various trade-offs within it.

Prereq: MTH 119 Mathematical Analysis for Social Sciences II or MTH 120 Calculus I and ORI 502 Business Information Systems or equivalent.

ORI 624 Operating Systems and Management of Computing Resources.

Three sem hours

Introduction to operating system resources. Batch processing systems, concurrency in software, introduction to multi-programming systems and support of concurrent processed memory management, processor scheduling, device management and other resources. File systems; examples of operating systems.

Prereq: ORI 610 Computers and Algorithms.

ORI 625 Software Engineering Management.

Three sem hours

This course involves the study of techniques for developing reliable software that can be delivered on schedule, within budget and in a maintainable condition. Societal implications of computer technology are also studied.

Prereq: ORI 610 Computers and Algorithms and ORI 614 Systems Analysis.

ORI 628 Advanced Data Structures. Three sem hours
The techniques, concepts and theory of the storage of data within computer systems will be studied.

Prereq: ORI 610 Computers and Algorithms.

ORI 630 Linear Programming and Extensions.

Three sem hours

An introduction to the theory, computational techniques and business applications of linear programming. Topics include solution techniques; duality theorem; sensitivity analyses; Gomory's integer programming algorithm; transportation, transshipment and assignment models; and zero-sum game models.

Prereq: MTH 118 Mathematical Analysis for Social Sciences I or MTH 122 Elementary Linear Algebra or equivalent.

ORI 632 Non-Linear Programming. Three sem hours
An introduction to the theory, computational algorithms and business applications of various types of nonlinear programming models. Topics include separable programming, classical theory or optimization, searching techniques, goal programming, branch and bound, and dynamic programming.

Prereq: ORI 630 Linear Programming and Extensions or equivalent.

ORI 634 Stochastic Models. Three sem hours
An introduction to stochastic models. Topics include Markov models, queuing models, stochastic programming and renewal theory. Applications of these models in various operating systems are emphasized.

Prereq: ORI 630 Linear Programming and Extensions or equivalent.

ORI 636 Forecasting Models. Three sem hours
An introduction to forecasting models. Topics include linear and non-linear regression models, moving average method, exponential smoothing. Fourier series method, Leontief's input-output model and Markov model. Use of these models in making forecasts in business and industry is considered.

Prereq: ORI 565 Applied Linear Statistical Models or equivalent.

ORI 638 Simulation and Modeling. Three sem hours
Introduction to digital simulation techniques as they apply to business. The course presents the basic concepts involved in simulation, describes applications of simulation to business problems and discusses technical problems associated with the use of simulation. Emphasis is on the design and operation of computer models.

Prereq: ORI 501 Introductory Probability and Statistics for Business or ORI 502 Business Information Systems.

ORI 640 Operations Management. Three sem hours
This course will investigate the use of management science techniques to analyze and solve various problems related to the design, operation and control of operating systems. Operating systems are broadly defined here to include service organizations. Topics included are process planning, location and layout of production facilities, forecasting of demand, aggregate planning, inventory control, loading and sequencing jobs on facilities, statistical quality control and management information systems.

Prereq: ORI 603 Quantitative Methods I or departmental permission.

ORI 645 Database Management Systems. Three sem hours
The techniques, concepts and theory relating to the use of generalized database management systems will be studied.

Prereq: ORI 628 Advanced Data Structures.

ORI 655 Decision Support Systems. Three sem hours
Framework for building decision support systems, process of building support systems, structural elements and interfaces, models evaluation and integration into decision support, system architecture, available automatic tools and future perspectives.

Prereq: ORI 610 Computers and Algorithms and ORI 614 Systems Analysis.

ORI 669 Business Conditions: Analysis and Forecasting. Three sem hours
Macroeconomic activity as a major determinant of firm operations. Short-term economic forecasting, econometric models, opportunistic models, economic indicators. Forecasting business investment, housing, consumer purchases, other GNP components. Seasonal variation and methods of seasonal adjustment.

Prereq: ORI 601 Managerial Economics.

ORI 675 Language Processors. Three sem hours
Applications of techniques of language processors to the problems involved in writing application programs, interactive computer systems and query languages, etc.

Prereq: ORI 625 Software Engineering Management.

ORI 681 Special Topics in Operations Research and Information Systems. Three sem hours
This course will be offered periodically to review selected contemporary topics in quantitative analysis, business computer systems and/or managerial and business economics.

Prereq: Completion of M.B.A. or M.S.I.S. core.

ORI 690, 691, 692 Master's Thesis in Information Systems. One, two and three sem hours
Students will develop and defend an original research proposal in the area of information systems. Upon the conclusion, students will prepare and defend a written report of their findings in the form of a master's thesis.

Prereq: Completion of all required M.S.I.S. courses and departmental permission.

ORI 695 Research Seminar in Computer-Based Information Systems. Three sem hours

This capstone course integrates management information systems (M.S.I.S.) with fundamental areas of business. The impact of M.I.S. in the organization is analyzed in terms of current design and implementation techniques and follow-up evaluation of business systems. The student writes an original research paper in the area of management information systems.

Prereq: All M.S.I.S. required and restricted elective courses must be completed prior to this course.

ORI 696 Systems Development Projects. Three sem hours

To provide the student with experience in analyzing, designing, implementing and evaluating industry-related information systems problems. Students are assigned one or more system development projects. The project involves part of all of the system development cycle.

Prereq: Completion of all M.S.I.S. required and restricted elective courses.

ORI 699 Independent Study. Three sem hours

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

COLLEGE OF EDUCATION

DEAN: Pending

ASSOCIATE DEAN: Mary A. Green

ASSOCIATE DEAN: Robbie A. Johnson

117 Boone

487-1414

DEPARTMENTS

Health, Physical Education, Recreation and Dance

Leadership and Counseling

(Formerly Educational Leadership and Guidance
and Counseling)

Special Education

Teacher Education

(Formerly Curriculum and Instruction,
Educational Psychology, and Social Foundations)

HEALTH, PHYSICAL EDUCATION, RECREATION AND DANCE

Patric L. Cavanaugh
Department Head
237 Warner
487-4388

John E. Sheard
Coordinator of Advising
233 Warner
487-0090

MASTER OF SCIENCE IN PHYSICAL EDUCATION

The primary aim of the master's degree in physical education is to assist graduates in the proper utilization of all their classroom and practical experiences in such a way as to afford optimum effectiveness in teaching.

Objectives

Upon completion of the master's degree, students will be able to:

1. utilize philosophy in establishing the objectives, methods, curricular activities, and techniques of evaluation which they should use in the physical education program;
2. develop a curriculum for either elementary school or secondary school physical education and utilize appropriate methods to achieve its goals;
3. utilize current procedures for evaluating student progress in achieving the objectives of the physical education program;
4. utilize sound administrative techniques in solving typical administrative problems in the area of physical education;
5. interpret current research as it applies to their own teaching;
6. acquire knowledge in greater depth in the areas of teaching selected by the individual student;
7. acquire skills, knowledge, and experience in areas which extend beyond their undergraduate preparation that will enhance their abilities to teach more effectively.

Admission Requirements

1. Meet Graduate School degree requirements.
2. A baccalaureate degree from an accredited institution.
3. A major or the equivalent in physical education or one of the associated areas.
4. A minimum of eight semester hours in the basic sciences and one course in evaluation.

Degree Requirements

1. Must have earned a minimum of 30 semester hours of graduate credit applicable to the program.
2. Must have completed a minimum of 20 semester hours of acceptable graduate credit in HPERD. Each candidate must take eight required classes in the core program and complete the total hours through electives.
3. Must receive the recommendation of the coordinator of advising and department head.

Curriculum Requirements

Candidates will have the responsibility of scheduling conferences with their graduate HPERD adviser to complete the following:

1. Core Courses (16 hours)
PED 568 Physical Fitness
PED 570 Critical Analysis of Physical Education
PED 578 Motor Learning and Development
PED 585 Physical Education in Elementary School or
PED 586 Physical Education in Secondary Schools
PED 587 Philosophy of Physical Education
PED 588 Administrative Problems in Physical Education
PED 677 Research Techniques
PED 698 Independent Study
2. Electives (eight to 14 hours)
Areas of concentration may be elected in the different programs of physical education or athletics.
3. Cognates (zero to six hours)
Courses may be elected outside HPERD with permission of the academic adviser.

A new master of science in sports medicine is anticipated beginning fall 1992. Information related to admissions, courses, and other degree requirements may be obtained from the program adviser. Prospective students are urged to make an appointment to discuss their qualifications for admission. Initial enrollment will be limited to fifteen (15).

ATHLETIC COURSES (ATH)

ATH 510 Administration of Athletics. Two sem hours
Problems related to interscholastic and intercollegiate athletic programs; for administrators, supervisors, coaches and others having a part in the control of athletics.

ATH 511 Advanced Techniques in Coaching Swimming: Stroke Technique. One sem hour
A course to provide the scientific and technical background to coach and teach competitive swimming strokes.

ATH 512 Advanced Techniques in Coaching**Swimming: Training Methods. One sem hour**

A course to provide the practical and scientific background for a swimming coach to design a competitive training program or a physical educator to make aquatics a meaningful fitness tool.

ATH 513 Coaching Women's**Gymnastics. Two sem hours**

A lecture-demonstration course in the problems and techniques of advanced coaching theories of women's gymnastics.

Prereq: One course in gymnastics or permission of instructor.

ATH 514 Judging Women's**Gymnastics. Two sem hours**

A lecture-demonstration course in the problems and techniques of judging women's gymnastics.

Prereq: One course in gymnastics or permission of instructor.

ATH 611 Advanced Techniques of**Coaching Football. One sem hour**

A lecture-demonstration course in the problems and techniques of advanced coaching theories of football.

ATH 612 Advanced Techniques of Coaching**Track and Field. One sem hour**

A lecture-demonstration course in the problems and techniques of advanced coaching theories of track and field.

ATH 613 Advanced Techniques of**Coaching Basketball. One sem hour**

A lecture-demonstration course in the problems and techniques of advanced coaching theories of basketball.

ATH 614 Advanced Techniques of Coaching**Baseball. One sem hour**

A lecture-demonstration course in the problems and techniques of advanced coaching theories of baseball.

ATH 615 Officiating and Coaching**Volleyball. Two sem hours**

A course designed for the individual who plans to coach and/or officiate volleyball. The class is structured to identify volleyball techniques, strategies, and coaching problems as well as officiating procedures, rule interpretation and responsibility of coach to official and vice versa.

ATH 616 Advanced Techniques of Coaching**Tennis. One sem hour**

A course designed to identify and discuss tennis techniques, strategies, and coaching problems.

ATH 619 Problems in Training for**Athletes. Two sem hours**

Problems in the physical preparation of athletes for competition; treatment and rehabilitation following injuries.

HEALTH EDUCATION COURSES (HED)**HED 545 Sex Education.****Two sem hours****(Formerly Workshop in Sex Education)**

Designed to provide a period of concentrated study and discussion about sex education for teachers, nurses, school administrators, clergy, and interested representatives of community agencies.

HED 546 Alcohol Use and Abuse.**Two sem hours****(Formerly Seminar: Alcohol Use and Abuse)**

Designed to improve the quality of teaching in alcohol education and the quality of rehabilitative efforts by public and private agencies concerned with alcohol problems. Attempts to develop an understanding of the physiological, psychological, and sociological factors related to the use of alcohol. Specifically, it is concerned with developing constructive attitudes toward the alcohol problem and dispelling prejudices, misunderstandings, and myths which obscure facts.

HED 590, 591, 592 Special**Topics. One, two and three sem hours****HED 640 Basic Concepts of the School Health****Program. Two sem hours**

To provide school personnel with an opportunity to study and understand the function of the total school health program with special emphasis upon the classroom teacher.

HED 643 Problems in Community**Health. Two sem hours**

Community health problems and the forces operative in their solution; the role of the educators dealing with the health problems of their environment.

Prereq: HED 640 Basic Concepts of the School Health Program.

HED 645 Problems in Sex**Education. Two sem hours**

A course designed to help school personnel improve and implement comprehensive sex education programs in the schools, K-12. The focus is on improvement of skills and techniques in teaching and program development.

HED 647 School Health Trends.**Two sem hours**

Review of recent literature and research in the areas of health service and health instruction; national trends in school health.

Prereq: HED 640 Basic Concepts of the School Health Program.

HED 650 Administration of the School Health Program. Two sem hours

For principals, supervisors, coordinators, athletic directors, and other personnel involved with the administration and leadership in school health programs. Current administrative theory in the implementation and improvement of school programs.

Prereq: HED 640 Basic Concepts of the School Health Program.

PHYSICAL EDUCATION COURSES (PED)**PED 505 Basic Statistics. Two sem hours**

Statistical procedures, distribution, measures of central tendency, measures of dispersion and correlation.

PED 506 Test Construction. Two sem hours

Types of written tests and examinations; construction, selection and interpretation of results.

PED 561 Supervision of Physical Education. Two sem hours

Problems, relationships, and procedures in the supervision of physical education programs.

PED 562 Facility Planning and Development. Two sem hours

Terminology, standards for planning, construction, use and maintenance of facilities in health, physical education, recreation, and athletics.

PED 565 Problems in Intramural and Extramural Sports. Two sem hours

Organization and administration of intramural and extramural sports in junior and senior high schools; practical aspects of programming for groups and individuals.

PED 566 Sport in American Society. Two sem hours

A study of significance of sport in American society with emphasis upon sport in the context of American culture, sport and social institutions in American society, socialization and sport, and some projections concerning the future of American sport.

**PED 568 Physical Fitness. Two sem hours
(Formerly Workshop in Physical Fitness)**

Current theories and practices in the development of physical fitness in our society; evaluation of school programs.

PED 570 Critical Analysis of Physical Education. Two sem hours

The expanding of physical education and the physical educator; an analysis of research in the foundation sciences and in philosophy.

PED 578 Motor Learning and Development. Two sem hours

A study of the development of motor skills in children as related to their age and growth patterns with an investigation of major theories and research in learning as applied to motor skills.

PED 579 Physical Education for Mentally Impaired. Two sem hours

Physical education curriculum and programming for the mentally impaired. Content includes program goals, assessment, prescription, teaching, and program evaluation. Emphasis will be placed on adapting materials and utilizing alternative teaching strategies to individualize instruction.

PED 580 Comparative Physical Education. Two sem hours

The historical heritage of physical education from early Greek studies of aims, objectives, and programs of ancient and modern cultures.

PED 581 Physical Education for Impaired Students. Two sem hours

Physical education curriculum and programming for the impaired student. Content includes program goals, assessment, prescription teaching and program evaluation. Emphasis will be placed on adapting materials and utilizing alternative teaching styles to individualize instruction in both main-streamed and segregated teaching situations.

PED 585 Physical Education in Elementary Schools. Two sem hours

Curriculum development, teaching methods, program planning, and evaluation for the physical educator and the elementary school teacher; purposes and principles of organization and development of a physical education program for elementary schools.

PED 586 Physical Education in Secondary Schools. Two sem hours

Developing a physical education curriculum for secondary schools; problems involved in supervision.

PED 587 Philosophy of Physical Education. Two sem hours

The development of concepts of physical education and their impact on the society in which we live.

Prereq: Major/Minor.

PED 588 Administrative Problems in Physical Education. Two sem hours

The case study approach to the understanding of problems in physical education and athletics; planning, orga-

nizing, developing, staffing, coordinating, and budgeting programs.

Prereq: Major/minor.

PED 589 Advanced Physical Testing. Two sem hours
The application and interpretation of advanced physical tests in the areas of health, physical education, recreation and athletics.

Prereq: Major/minor.

PED 590, 591, 592 Special Topics. One, two and three sem hours

PED 606, 607, 608 Colloquium. One, two and three sem hours

PED 630 Basic Electrocardiography. Three sem hours

A two-hour lecture course on the basics of electrocardiography including EKG leads, EKG waves, time intervals, rate, normal rhythm, cardiac arrhythmias, basic axis determination, hypertrophy, ischemia, injury, infarction, blocks, exercise EKGs, pacemaker rhythm, and drug effects on the EKG.

PED 637 Techniques for Graded Exercise Testing. Three sem hours

Students will demonstrate appropriate knowledge of functional anatomy, exercise physiology, patho-physiology, and electrocardiography in order to administer graded exercise tests. Students will demonstrate their ability by helping to screen participants, administering tests, recording data, implementing emergency procedures, and summarizing data.

PED 640 Advanced Exercise Physiology. Two sem hours

A course designed to emphasize the cardio-respiratory and muscular adaptations that occur in the human during physical activity, especially as it relates to the preventive and rehabilitative aspects of exercise.

Prereq: PED 200 Anatomy and Physiology and PED 300 Physiology of Exercise.

PED 665 Sport Psychology. Two sem hours

This course will attempt to familiarize the student, whether coach, athlete, or teacher, with scientific psychology as it relates to sport. The complex nature of optimal performance requires that an integrated psychological and physiological approach be employed. Therefore, theoretical and empirical evidence from the fields of applied psychology, applied physiology, and sports medicine will be used to help the teacher-coach be more effective.

PED 668 Sport Training and Physical Fitness. Two sem hours
(Formerly Seminar in Physical Fitness)

A study of current literature pertinent to the administration, exercise evaluation and implementation of adult and school fitness programs. Components of the physical training process and its importance to various sports are also examined.

PED 670 Current Problems in Physical Education. Two sem hours

Identification, discussion, and analysis of current problems and issues which confront the physical educator.

RESEARCH COURSES

PED 677 Research Techniques. Two sem hours
(Formerly PED 592)

Research in a variety of settings; reviewing published research, participating in research, presenting a plan for a research problem.

PED 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly PED 597, 598, 599)

An intensive study of a problem under the direction of a University faculty member.

Prereq: PED 677 Research Techniques or equivalent.

WORKSHOP COURSES

ATH 595 Workshop in Athletics. Two sem hours
(Formerly PED 515)

A specialized workshop in the area of athletics with the central theme to be announced.

REC 595 Workshop in Recreation. Two sem hours
A specialized workshop in the area of recreation with the central theme to be announced.

HED 595 Workshop in Health Education. Two sem hours
(Formerly PED 555)

A specialized workshop in the area of health education with the central theme to be announced.

PED 595 Workshop in Physical Education. Two sem hours
(Formerly PED 575)

A specialized workshop in the area of physical education with the central theme to be announced.

SEMINAR COURSES

ATH 694 Seminar in Athletics. Two sem hours
A specialized seminar in the area of athletics with the central theme to be announced.

REC 694 Seminar in Recreation. Two sem hours
A specialized seminar in the area of recreation with the central theme to be announced.

HED 694 Seminar in Health Education. Two sem hours
A specialized seminar in the area of athletics with the central theme to be announced.

PED 694 Seminar in Physical Education. Two sem hours
(Formerly PED 663)
A specialized seminar in the area of physical education with the central theme to be announced.

LEADERSHIP AND COUNSELING

Martha W. Tack
Department Head
13 Boone Hall
487-0255/487-3270

The Leadership and Counseling Department offers two program areas—educational leadership and guidance and counseling. The educational leadership program awards the institution's first doctoral degree, the Ed.D., as well as the specialist in arts degree and the master of arts degree. The guidance and counseling program offers both a specialist in arts degree and a master of arts degree. Both program areas have the flexibility and content to provide education to a broad range of professionals seeking training for leadership, counseling and personnel services in diverse agencies, and organizations.

The specific requirements and class offerings follow.

EDUCATIONAL LEADERSHIP PROGRAMS

William M. Hetrick
Doctoral Program Coordinator
13 Boone Hall (313) 487-0255

Jack Minzey, Director
Center for Community Education and
Coordinator of Advising
13 Boone Hall (313) 487-0255

The educational leadership programs leading to the doctor of education degree, the specialist in arts degree and the master of arts degree, as well as individual courses, are of interest and assistance to professional educators generally. For prospective or practicing administrators, the programs provide basic administrative course offerings as well as opportunities to specialize in administration for elementary, middle and secondary schools, central office and higher education levels. In addition, persons preparing for leadership positions in the many other areas of education (e.g., adult education, business management, career education, community education, personnel, school and community relations, administration of vocational and technical education, etc.) will find an appropriate selection of courses. Many courses offered are excellent electives for students pursuing advanced degrees in other departments.

Program formats have been designed to provide flexibility in course selection to accommodate each student's unique experience and future career goals. Course selections should reflect the student's career aspirations and state licensure requirements. The program is usually planned to prepare the student for a specific educational administrative position. More complete information may be obtained by contacting

Jack Minzey, Coordinator of Advising, or one of the following program advisers: Helen Ditzhazy, William Hetrick, Charles Mitchell, Donna Schmitt or Martha Tack.

DOCTOR OF EDUCATION

Admission Requirements

The doctoral program requirements as stated in the Graduate Bulletin are the basis for admission and completion of the doctorate in educational leadership. Please refer to the appropriate section of the Graduate Bulletin for details. To be eligible for admission to the doctoral program in educational leadership at Eastern Michigan University, the applicant must meet the following departmental requirements.

For Students with a Master's Degree:

- a. An earned master's degree from an accredited university with a minimum grade point average of 3.75 on a 4.0 scale for full admission.

For Students with a Specialist's Degree:

- b. As a means of ensuring quality and high academic standards, course work taken enroute to completion of the specialist in arts degree is restricted to Eastern Michigan University credit, except for nine hours of post master's work which may be used to satisfy doctoral program requirements. An individual who completes the 32-hour specialist in arts degree in educational leadership at Eastern Michigan University, if admissible to the doctoral program, may apply up to 32 hours of Sp.A. (course work toward the doctorate, thus enabling him/her to complete the doctorate with a minimum of 28 additional semester hours, all of which must be taken at Eastern Michigan University. It is anticipated that most students will need additional hours in order to meet their professional and degree objectives. Individuals who have earned a specialist's degree from another accredited institution of higher education will be required to complete a minimum of 51 hours of course work at EMU. Students with a master's degree from Eastern Michigan University in a field other than educational leadership will typically have to complete 72 additional hours of course work.

Additional Requirements

- c. The department requires an applicant to submit the following materials for review:
 - 1) a valid teaching certificate or waiver;
 - 2) proof of at least three years of administrative experience or waiver;
 - 3) a letter of endorsement and an evaluation form completed by each of the following:
 - a) immediate supervisor,
 - b) a peer, and
 - c) a past supervisor or professor; and

- 4) an autobiographical statement containing information on education, work experience, nature of current position and personal and professional aspirations.
- d. Scores on the Graduate Record Examination are required and the applicant is responsible for having them submitted to The Graduate School. Typically, students admitted to the doctoral program will have scored in the 55th percentile on the analytical, verbal and quantitative sections of the GRE. However, given the department's focus on a holistic approach to admission, failure to score at this level on the GRE will not necessarily exclude a person from admission, if other factors indicate potential for success and are judged as superior assets by the faculty.
- e. The department will conduct personal interviews with selected individuals applying for the doctoral degree.

Program Requirements

A doctoral student's individualized course of study is normally expected to encompass 60 semester hours of course work beyond the master's degree. The exact number of hours will be determined by the student's program adviser, based on a review of previous graduate transcripts, the student's professional and personal aspirations and Ed.D. degree requirements as set forth by The Graduate School and the Leadership and Counseling Department. Therefore, some plans of study will have only 60 semester hours while others may include additional hours (either courses designed to remove deficiencies or classes focused on enhancing opportunities for leadership success) at the discretion of the program adviser and doctoral committee members. The typical program of study will be divided into the following five components:

Component	Semester Hours Required
Major (Educational Leadership)	20
Cognate	10
Research	10
Dissertation Research	16
Internship	4

Major (Educational Leadership)

The 20 hours in the major are composed of educational leadership courses identified by the student and his/her program adviser. Paramount in making selections about these courses are degree requirements and the student's career, personal, licensing and professional goals. Upon completion of this individualized program of study in the major, the student will have the requisite knowledge needed to fill a leadership role in a preferred area of service.

Cognate

The adaptability of the program is again apparent in the opportunity for doctoral students and program advisers to construct a cognate which contributes significantly to a student's development as a professional educator and administrator. A cognate is an area of specialization developed through completion of a sequence of related courses that are designed to add depth to the student's doctoral program. In order to provide maximum flexibility in meeting individual student needs, the 10-hour cognate may be completed in any one or a combination of graduate academic units, departments, schools, or colleges of the University that offer a sufficient number of advanced (600 and 700 level) graduate courses. A representative of the cognate area will serve as a member of the student's doctoral committee.

Research

The third major segment of the doctoral program is designed to enable the student to accomplish the following:

- a. Demonstrate competence in research design, analysis and the use of research tools.
- b. Conduct useful research.
- c. Operate as an informed consumer of educational research.

In order to meet these outcomes, the program of study includes 10 semester hours of course work in research.

Dissertation Research

Each student in the Ed.D. program will be required to complete a dissertation, a document representing an original research effort. The dissertation will focus on an area of particular interest to the student and the dissertation chair; and the research may be conducted using a variety of research designs (causal-comparative, experimental, etc.) as well as approaches (quantitative or qualitative).

Overall, the doctoral student must register for a minimum of 16 semester credit hours of dissertation research; but he or she may not enroll in dissertation research until he or she has passed the comprehensive qualifying examination and has been admitted to candidacy by The Graduate School. It should be noted that this stipulation does not preclude the student's working with the dissertation chair in formulating ideas about the specific research topic. However, the approval of the dissertation proposal cannot occur until after the student has passed the comprehensive qualifying examination. In completing the first 2 semester hours of dissertation research, the student will be required to attend a dissertation research seminar.

Internship

The application of conceptual, technical and human relations skills essential to successful educational leadership (i.e., the testing of theory against prevailing prac-

tice) is best observed and explored when there is direct involvement in administration. Students, serving as administrative interns, complete a minimum of 200 clock hours of service at the internship site in an area related to their career goals. The internship is supervised by an experienced educational administrator and the director of the intern program.

The internship is normally completed as the final experience of the specialist in arts degree program. For students who do not wish to qualify for the Sp.A. degree, the internship must be finished prior to the completion of the comprehensive qualifying examination.

In addition to completion of the planned program of study, each student in the Ed.D. program must complete a residence experience and a comprehensive qualifying examination. These important aspects of the doctoral program are described below.

Residence Requirement

The residence requirement must be completed after admission is granted to the Ed.D. program, and the faculty in the Department of Leadership and Counseling expect the student to become a member of a community of scholars during the residence experience. In order to satisfy this requirement, students must enroll in a total of 16 semester hours of on-campus course work—exclusive of dissertation research—during successive semesters in a 12-month period and must be available to participate in all activities planned for students who are in residence.

Comprehensive Qualifying Examination

Students involved in the Ed.D. program will take a 14-hour comprehensive qualifying examination (i.e., 12 hours written and 2 hours oral), as a means of demonstrating their ability to integrate a wealth of information into a meaningful whole. Each student will be expected to show subject mastery of the major (educational leadership) and the cognate in terms of the literature base, concepts, philosophy, research and issues/problems. Each student also must provide evidence that he or she can analyze and synthesize information as well as draw appropriate conclusions.

A student who does not pass the comprehensive qualifying examination may (after a lapse of at least six months) take another examination. After the second written attempt, if the student's doctoral committee chooses to do so, the members may ask the student to participate in an intensive oral examination. If, after the oral examination, the doctoral committee members maintain that the student has not achieved the level of proficiency needed by a professional in the field of educational leadership, the recommendation will be made to the Graduate Dean that the student be dismissed from the Ed.D. program.

SPECIALIST IN ARTS

Admission Requirements

Admission requirements for a specialist's candidate holding a master's degree are:

1. Compliance with the specialist's degree admission requirements of The Graduate School.
2. A valid master's degree from an accredited graduate school.
3. A 3.3 ("B+") graduate grade-point average in the completed master's degree or a favorable score on the Miller Analogies Test.
4. A valid teaching certificate. (See adviser for waiver provisions.)
5. A year or more of successful teaching or administrative experience, or equivalent acceptable to the adviser.
6. Three favorable recommendations from supervisors. (Use Educational Leadership's "Confidential Appraisal Form.")

Program Requirements

The specialist's degree program requires a minimum of 32 semester hours beyond the master's degree. Students who have earned their master's degree from other departments at Eastern Michigan University or at other institutions will be required to remove master's degree level deficiencies. Students work closely with their adviser in developing programs that will prepare them for their career goals and for state licensure.

Candidates for the specialist's degree in educational leadership must satisfactorily complete all work on the program of study, including the following:

A minimum of 62 semester hours of graduate credit applicable to the program (32 semester hours beyond the 30 semester hour master's degree program). The requirements outlined below provide the basic guidelines within which the students' programs are developed.

1. Completion of a master's degree in educational leadership or equivalent course work.
2. Concentration Area (16 hours)
EDL 710 Leadership Theory (2)
Fourteen hours of educational leadership electives. These courses in educational leadership are selected with approval of the adviser and reflect the student's professional needs and objectives and state licensure requirements.
3. Applied Research (10 hours)
EDL 712 Analysis of Research in Administration (2)
EDL 713 Field-Based Research (4)
EDL 789 Internship in Educational Administration (4)
4. Cognates (6 hours)
These courses are elected from either educational leadership or other University departments and should complement the program goal.

5. Residency Requirement
Sixteen hours of on-campus credit or 12 hours on campus and four hours at the Flint Center.
6. An overall GPA of 3.3 ("B+") is required for graduation.

Additional Program Information

Course Substitutions/Program Changes: Changes in the student's official program and substitution of courses must be approved by the adviser prior to registration. With the approval of the student's adviser, one course may be substituted from another area for a course in the educational leadership core if the course is administrative in nature. Such a course cannot carry more than three hours of credit.

Courses Outside the Program: A suggested list of courses has been prepared by the department. Other courses may be used in this area if they are approved by the student's adviser.

Internships: Information is available from the director of the intern program, *Dr. Donna Schmitt*. Internship placements should be arranged at least one year in advance.

State of Michigan Licensure

The State of Michigan requires all public school administrators to hold valid administrative licenses. This license consists of five possible endorsements: elementary principalship, secondary principalship, business management, central office and superintendent. Administrators must hold the endorsement appropriate to the job for which they are employed.

Eastern Michigan University's educational leadership program is authorized to recommend all five endorsements. All candidates for endorsement must hold a master's degree, have a valid teaching certificate appropriate for the area of endorsement, have three years of successful teaching at a level that matches the endorsement sought, and have had or currently hold admission to the educational leadership program at Eastern Michigan University. In addition to these conditions, the candidate must meet the following requirements:

- Elementary Principalship—20 hours of approved educational leadership classes.
- Secondary Principalship—20 hours of approved educational leadership classes.
- Business Manager—20 hours of approved educational leadership classes.
- Central Office—30 hours of approved educational leadership classes.
- Superintendent—40 hours of approved educational leadership classes.

Candidates may apply for each endorsement for which they qualify. Information and application forms can be obtained by contacting the Educational Leadership Program Office, 13 Boone Hall, (313) 487-0255.

MASTER OF ARTS

Admission Requirements

1. Compliance with degree admission requirements of The Graduate School.
2. A valid undergraduate degree from an accredited four-year institution of higher education. (Undergraduates may apply after the final semester's registration is completed.)
3. A 2.5 undergraduate grade point average, a 2.75 undergraduate grade point average for the last 60 hours, or a favorable Miller Analogies Test score. (Applicants for a second master's degree must have had a 3.0 graduate grade point average on the first master's degree program.)
4. A valid teaching certificate. (See adviser for waiver provisions.)
5. A program planning interview with an adviser.

NOTE: *International students should consult with an adviser regarding their admission.*

Program Requirements

Following admission and prior to initial registration for classes, the student should select and consult with a program adviser, who will assist in the development of an official program of study. Candidates for the master's degree in educational leadership must satisfactorily complete all work on the program of study, including the following:

A minimum of 30 semester hours of graduate credit applicable to the program. The requirements outlined below provide the basic guidelines within which students' programs are developed.

1. Core Requirements (20 hours)
Twenty semester hours in educational leadership courses selected with approval of the adviser and reflecting State of Michigan requirements for licensure.
2. Supportive Area (10 hours)
EDP 677 Research Techniques (2)
Other supportive courses may be selected from educational leadership, other College of Education courses or courses outside the College of Education. These courses should support the student's professional objectives and be approved by an adviser.
3. Residency Requirement
Six semester hours must be taken on campus or at the Flint Center.
4. Students in educational leadership who would like to also obtain school counselor endorsement should discuss this goal with their program adviser prior to enrolling in classes or developing a program of study.

EDUCATIONAL LEADERSHIP COURSES

EDL 510 Educational Organization. Two sem hours (Formerly EDL 502)

Organization of American public schools; authority, functions and relationships of federal, state and local governments to education; methods of organization within school districts; non-graded organizational patterns. *Open to non-majors and majors.*

EDL 511 Community Organization. Two sem hours (Formerly EDL 540)

An understanding of the community as a social group. Emphasis on community analysis, leadership, criteria of a good community, principles of change and action. *Open to non-majors and majors.*

EDL 512 Community Education. Two sem hours (Formerly EDL 556)

The basic principles and philosophy of community education; its current status and relationship to education. *Open to non-majors and majors.*

EDL 513 Education and Community Relations. Two sem hours (Formerly EDL 560 School and Community Understanding)

Interpreting the educational institution to the community with emphasis on improving relationships between the two. Means of communicating with many publics and means of getting community feedback. *Open to non-majors and majors.*

EDL 514 Educational Leadership. Two sem hours (Formerly EDL 562 Introduction to Leadership)

Explanation of the process and function of various leadership positions including current practices, theories and concepts of administration. *Open to non-majors and majors.*

EDL 515 Supervision of Instruction. Two sem hours (Formerly EDL 566)

Development of those attitudes and skills necessary for administrators as they plan and maintain effective, positive instructional programs; analysis and design of appropriate educational opportunities for all students. *Open to non-majors and majors.*

EDL 516 School Law for Teachers. Two sem hours (Formerly EDL 580)

Legal principles underlying day-to-day teaching activities; how laws operate and legal principles develop. *Open to non-majors only.*

EDL 517 Evaluation of Educational Services. Two sem hours
(Formerly EDL 587 Evaluation of Organizational Services)

Problems, principles and procedures involving the evaluation of facilities, personnel, programs and services. Evaluation instruments will be developed, applied and analyzed. *Open to non-majors and majors.*

EDL 610 Accounting for School Administrators. Two sem hours
(Formerly EDL 515)

Principles, theory and procedures of public school fund accounting; accounting principles as applied to various kinds of public school funds; financial statements and reports; internal accounting control; payroll accounting; business papers and procedures. *Open to non-majors and majors.*

EDL 611 Introduction to Adult Education. Two sem hours
(Formerly EDL 550)

A general overview of the topic of adult education to students for introductory purposes and a basis for further concentration and study in selected advanced areas of adult education. This course should be a prerequisite for advanced study and includes philosophy, history, identification of adult objectives, knowledge of adult learners, contemporary status, trends and issues in adult education. *Open to non-majors and majors.*

EDL 612 Economics of Public Education. Two sem hours
(Formerly EDL 553)

An examination of the basic economic, fiscal and legal theories of support for education, tax structures, state aid formulas, federal aid and school budgets. *Open to non-majors and majors.*

EDL 613 Introduction to Higher Education. Two sem hours
(Formerly Philosophy and Purposes of the Community College)

An introduction to the study of higher education, including two- and four-year colleges and universities. The course is designed for persons interested in developing an understanding of the background, growth, purposes and practices of higher education in the United States. *Open to majors and non-majors.*

EDL 614 Law for Higher Education. Two sem hours
(Formerly EDL 581)

An examination of the major legal aspects of the administration of institutions of higher learning. *Open to non-majors and majors.*

EDL 615 Collective Negotiations in Education. Two sem hours
(Formerly EDL 651)

An analysis of negotiations; issues which may be encountered by school administrators and teachers in collective negotiations in education. *Open to non-majors and majors.*

EDL 616 Educational Facilities Planning. Two sem hours
(Formerly EDL 655)

Problems and procedures revealed through a plant-planning chronology that includes hiring the architect, the attorney's role, site acquisition, involving citizens, utilizing staff, the bond issue, designing and constructing the building. Emphasis will be placed on renovating, closing and alternative uses for existing buildings. *Open to non-majors and majors.*

EDL 617 Administration of Educational Personnel. Two sem hours
(Formerly EDL 658)

For prospective and practicing administrators. Development of an understanding of the issues, problems and practices involved in administration of personnel programs in education. An in-depth exploration of the basic principles of staff administration and high-level morale.

Prereq: Six hours of credit in educational leadership.

EDL 618 Elementary School Principalship. Two sem hours
(Formerly EDL 671)

The examination of the elementary school principal's role in improving curriculum and instruction; in the establishment of effective, routine operations in an elementary school; in establishing avenues for change by an awareness of innovations, materials, technologies and research that are relevant to elementary school education.

Prereq: Six hours of credit in educational leadership.

EDL 619 Middle School/Junior High School Administration. Two sem hours
(Formerly EDL 672)

An examination of the characteristics of the middle school/junior high school and the organization necessary to provide those experiences and instruction necessary to assist early adolescents in making the transition from childhood dependence to adult independence, including approaches to instruction, scheduling procedures, exploratory and enrichment studies, evaluation methods, staff development, student services and community relations.

Prereq: Six hours of credit in educational leadership.

**EDL 620 Senior High School
Principalship.
(Formerly EDL 673)**

Two sem hours

Educational leadership in the secondary school, including approaches to school-community relations, curriculum, instruction, special services, buildings and equipment, pupil relations, personnel relations, scheduling, staff development and innovative practices.

Prereq: Six hours of credit in educational leadership.

**EDL 621 Community School
Administration.
(Formerly EDL 674)**

Two sem hours

Principles and techniques of administering community education.

Prereq: EDL 512 Community Education.

**EDL 622 Organization and Administration of the
Community College.
(Formerly EDL 675)**

Two sem hours

An understanding of the two-year college; its legal bases, external and internal constraints, functional patterns, administrative staff roles and responsibilities, faculty organization and authority, and student participation in organizational structure. *Open to non-majors and majors.*

**EDL 623 Adult Education
Administration.
(Formerly EDL 676)**

Two sem hours

An in-depth study of the leadership necessary to administer and manage adult education programs in the public and private sector. A practical knowledge of adult education administration also will be obtained.

Prereq: EDL 611 Introduction to Adult Education or permission of the instructor.

**EDL 624 School Business
Management.
(Formerly EDL 677)**

Two sem hours

School business procedures, budgeting, construction, purchasing, salary schedules, school indebtedness and insurance problems.

Prereq: EDL 612 Economics of Public Education.

**EDL 625 Public School
Superintendency.**

Two sem hours

In-depth studies in practical knowledge and skills required to carry out effectively the responsibilities of the chief executive officer of a modern school system.

Prereq: Six hours of credit in educational leadership.

**EDL 630 Legal Aspects of
Administration.
(Formerly EDL 680)**

Two sem hours

Operation of laws; development of legal principles; federal and state relationships to education; authority rela-

tionships to education; authority and liability of school boards, administrators and teachers; negligence; discipline and control. *Open to non-majors and majors.*

**EDL 631 Human Relations Skills for
Educational Leaders.**

Two sem hours

An overview of the need for and functions of various human relations in the leadership of educational institutions. Development of an understanding and practice of specific interactive strategies necessary for such leadership. *Open to non-majors and majors.*

EDL 640 Organizational Theory.

Two sem hours

Various theories, approaches and methods of organizing educational institutions. Concerned with design, purposes, processes, problems and issues of organizational structuring and change. Examination of organizational environment and informational organization. *Open to non-majors and majors.*

**EDL 650 Advanced School Finance.
(Formerly EDL 711/653)**

Two sem hours

Designed to acquaint students with specific areas of school finance, with a focus on the capital outlay program, the school bond market, the bond prospectus, model state foundation programs and the development of sound debt management policies.

Prereq: EDL 612 Economics in Public Education.

**EDL 679, 680, 681 Special
Topics.
(Formerly EDL 539)**

One, two and three sem hours

These course numbers are used for special offerings of the department whenever a course is being used on an experimental basis.

Prereq: Will be determined on the basis of the topic being offered.

**EDL 682, 683, 684, 685 Workshops in Educational
Leadership.
(Formerly EDL 595)**

One, two, three and four sem hours

Concerned with special topics of educational leadership. Designed to maximize student participation. Workshop method of teaching and learning emphasized. Topics to be selected. (See current schedule.)

Prereq: Will be determined on the basis of the workshops being offered.

**EDL 686, 687, 688, 689 Master's Internship in
Educational Leadership.
(Formerly EDL 594)**

**One, two, three and
four sem hours**

Training in administration through actual supervised experience. Arrangements must be approved by adviser and Director of the Intern Program prior to registration. Enrollments limited.

Prereq: Departmental permission. Majors only.

EDL 694, 695, 696 Seminars in Educational Leadership. One, two and three sem hours
(Formerly EDL 596)

Concerned with broad or special topics of educational leadership. Students are limited to four hours of seminar credit on a master's degree program. Topics to be selected. (See current schedule.)

Prereq: Will be determined on the basis of the seminar being offered.

EDL 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly EDL 597, 598, 599)

An intensive study of a problem under the direction of a University faculty member.

Prereq: Approval of adviser, 10 hours in educational leadership and departmental permission.

COURSES FOR SPECIALIST'S DEGREE STUDENTS ONLY

EDL 710 Leadership Theory. Two sem hours
(Formerly EDL 605)

Theories and models of administration and leadership; general theories and research in leader behavior.

EDL 712 Analysis of Research in Administration. Two sem hours
(Formerly EDL 683)

Emphasis on contributions of research in the behavioral sciences to educational leadership. Critical readings of the research of psychologists, sociologists, political scientists and others that have special meaning in understanding such concepts as leadership, organization, power, authority, communication, innovation and decision making.

Prereq: Six hours in educational leadership and EDP 677 Research Techniques.

EDL 713 Field-Based Research. Four sem hours
(Formerly EDP 693 Practicum)

Development and completion of a field-based research study.

Prereq: EDL 712 Analysis of Research in Administration, EDP 677 Research Techniques and departmental permission.

EDL 779, 780, 781 Special Topics Seminar. One, two and three sem hours
(Formerly EDL 686)

An intensive study of a topic of current relevancy.

Prereq: Will be determined on the basis of the topic being offered.

EDL 786, 787, 788, 789 Internship in Educational Administration. One, two, three and four sem hours

(Formerly EDL 694)

Provision of an opportunity for the graduate student, teacher or administrator to develop administrative skills by working under the direction of an experienced administrator. Arrangements must be approved by adviser and Director of the Intern Program prior to registration. Open to majors only.

Prereq: Departmental permission.

EDL 790, 791, 792 Thesis. One, two and three sem hours

(Formerly EDL 690, 691, 692)

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Approval of adviser and departmental requirements for thesis.

EDL 794, 795, 796 Advanced Seminar in Administration and Supervision. Two, three and four sem hours
(Formerly EDL 696)

An intensive study of selected problems in administration and supervision. Students are limited to four hours of seminar credit on the specialist's degree program.

Prereq: Six hours toward the specialist in arts degree.

EDL 797, 798, 799 Independent Study. One, two and three sem hours
(Formerly EDL 697, 698, 699)

An intensive study of a problem under the direction of a University faculty member.

Prereq: Approval of adviser, 10 hours in educational leadership and departmental permission.

COURSES FOR DOCTORAL STUDENTS ONLY

***EDL 810 Ethics and Policy Analysis for Educational Leaders.** Two sem hours

Designed to equip students with analytical skills for confronting ethical issues in business, education, research, nursing and government. Opportunities for critical thinking about ethical problems in professional settings will be provided. Selected school board and government policies will be analyzed from an ethical base using diverse views of professional moral duties as a screening device.

Prereq: Admission to the doctoral program in educational leadership.

EDL 895 Dissertation Research*Seminar. Two sem hours**

Designed for the doctoral student who has identified the topic for his or her dissertation research and focused on the production and evaluation of proposals for the doctoral dissertation. *Credit/no credit basis.*

Prereq: Admission to candidate status and permission of dissertation chair.

EDL 896, 897, 898, 899, and 900 Dissertation*Research. One, two, four, eight and twelve sem hours**

Designed for the doctoral student who is working on his or her dissertation research. Enrollment in the various courses will reflect the student's effort on the dissertation in a given semester. Only 16 dissertation credit hours (including EDL 895) can be applied toward the doctoral degree program. *Credit/no credit.*

Prereq: Admission to candidate status and successful completion of EDL 895.

*Pending final approval

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
EDL 510	X	X	OR X	X
EDL 511		X		
EDL 512	X	X	OR X	X
EDL 513	X	X		X
EDL 514	X	X	OR X	X
EDL 515	X	X		X
EDL 517	X		X	X
EDL 610	X			
EDL 611		X		X
EDL 612	X		X	X
EDL 613				X
EDL 614	X			
EDL 615	X			
EDL 616				X
EDL 617	X		X	X
EDL 618		X		X
EDL 619				X
EDL 620	X		X	
EDL 621	X			
EDL 622	X			
EDL 623				X
EDL 624	X			
EDL 625	X			
EDL 630	X	X		
EDL 631	X			X
EDL 640				X
EDL 650	X			
EDL 680	X			
EDL 687	X	X	X	X
EDL 695	X		X	
EDL 697	X		X	X
EDL 698	X		X	X
EDL 699	X		X	X
EDL 710		X		X
EDL 712			X	X
EDL 713	X		X	X
EDL 780			X	
EDL 789	X		X	X
EDL 795	X			
EDL 797	X	X	X	X
EDL 798	X	X	X	X
EDL 799	X	X	X	X
EDL 810				X
EDL 895	X			
EDL 896-900	X	X	X	X

The above schedule is subject to modification because of personnel and enrollment changes. Consult the official class schedule for each term. Courses are offered each term through the Division of Continuing Education as a supplement to the above schedule.

GUIDANCE, COUNSELING AND COLLEGE STUDENT PERSONNEL PROGRAMS

Benjamin W. Van Riper
Coordinator of Advising
13 Boone Hall
487-3270

Graduate study in guidance and counseling consists of the specialist in arts degree program, master of arts degree program, and service course offerings for classroom teachers and graduate students in related fields.

The specialist's degree program of studies provides individuals with advanced competencies, enabling them to assume professional counseling and leadership positions. The advanced program of graduate studies is directed to those persons aspiring for greater effectiveness in their current employment and advancement in various community and educational settings which require professional counseling skills and knowledge.

The master's degree program provides entry-level competencies and proficiencies for such positions as elementary school counselors, secondary school counselors and college student personnel workers. In addition, community agency counselors receive education and training which leads to licensure. For more information, contact Dr. B.W. Van Riper, coordinator of advising, or one of the following program advisers: Irene Ametrano, John Pappas, Lou Thayer, Ben Van Riper, or John Waidley.

SPECIALIST IN ARTS

Admission Requirements

Admission decisions are thoughtfully and sensitively weighed by faculty. Judgments are based on the maintenance of professional standards and careful review of applicant credentials. Criteria for admission to the Sp.A. in counseling are in two stages:

Stage I

1. An application from The Graduate School on file in the Department of Leadership and Counseling.
2. A 3.3 graduate grade point average.
3. A one-page statement of interest.
4. A one-page resume.

Stage II

1. Provide three letters of support (two from counseling faculty and one from a supervisor).
2. Take part in an interview process.

Admission Procedures

1. Meet Sp.A. requirements of The Graduate School and of the guidance, counseling, and student personnel program.
2. Hold an M.A. in counseling or its equivalent (including all the basic counseling skills and competencies) from an accredited institution.
3. Provide written expression of (a) personal and professional reasons for pursuing the degree program, and (b) professional counseling goals.
4. Provide a description of training, education, and experiences related to your interest in advanced study in counseling.

Admission Process

Future applicants to the Sp.A. are advised to proceed as follows:

1. Apply to The Graduate School.
2. Provide statement of purpose, resume, and letters of support on request of the coordinator of advising in counseling by announced dates of submission.

Program Requirements

The advanced studies in the guidance and counseling program, which culminates with the specialist in arts degree and licensure, prepares counselors for professional counseling, personnel and leadership positions in community and educational settings. The focus of the program is on advanced-level competencies for counseling and upon the expanding knowledge in the fields of counseling, psychology and life development. While the goal is counselor development and greater effectiveness, increased counselor competitiveness in the human services job market is also of primary importance.

The advanced studies program builds on four developmental themes reflected in the master of arts program. These themes are individual counseling competencies, group process/counseling competencies, assessment methods and processes, and life/vocational development.

The specialist in arts degree requires a minimum of 32 semester hours beyond the master's degree. The main components consist of 18 semester hours of study in the guidance and counseling area with 14 semester hours of elective course work.

The 14 semester hours of elective course work enable participants to individualize their professional goals in the program. These courses may be elected to strengthen the counselor's background and understanding in the social and behavioral sciences as these relate to counseling. Participants have the opportunity to develop minor specialty areas of concentration in related disciplines by taking electives in such areas as guidance and counseling, psychology, educational leadership, educational psychology, home economics, communication and theatre arts, and special education. An overall GPA of 3.3 ("B+") is required for graduation.

MASTER OF ARTS

Admission Requirements

1. Compliance with Graduate School degree admission requirements.
2. A valid teaching certificate (elementary and/or secondary) for those students pursuing the school counselor endorsement program.
3. Grade point average (GPA) requirements vary depending on the program of study. For 32-hour programs (school counseling and college student personnel), the following are applicable:

A 2.50 undergraduate grade point average overall or a 2.75 grade point average in the last half of undergraduate degree program;

or

Students who have an undergraduate grade point average between 2.0 and 2.49 may take the Miller Analogies Test (MAT); those who achieve a score of 37 or above on the MAT will be eligible for admission.

For information about GPA requirements for the community counseling (48-hour) program, contact Dr. B. W. Van Riper, coordinator of advising, 13 Boone Hall.

4. Completion of a Personal Data Form.
5. A personal interview with an assigned adviser.
A program adviser will be assigned each student when records are received from The Graduate School. At this time, the student will be notified and should arrange for a personal interview. The adviser will assist the student in developing a planned program of graduate study. All courses and subsequent changes in the program must be approved by the adviser. Persons desiring further clarification of admission requirements or information related to conditional admission should contact Dr. B. W. Van Riper, coordinator of advising, 13 Boone Hall.

Program Requirements

A master's degree program consists of these two major components: a major concentration in guidance and counseling and appropriate courses in cognate areas. Students pursuing graduate study in school counseling and endorsement as elementary or secondary school counselors in Michigan follow the program outline, "School Counselor Program." Students pursuing graduate study in college student personnel follow the program outline, "College Student Personnel Program." Students pursuing graduate study in area of community counseling follow the program outline entitled "Community Counseling."

SCHOOL COUNSELOR PROGRAM

The following outline describes the general program requirements leading to a minimum of 32 semester hours of graduate study for those students seeking training and endorsement as elementary or secondary school counselors:

1. Major Concentration in Guidance and Counseling (20-26 hours)
 - a. Required Courses
 - G&C 500 Helping Relationships: Basic Concepts and Services
 - G&C 505 Counselor Development: Basic Skills
 - G&C 510 Counselor Development: Counseling Process
 - G&C 520 Standardized Group Testing
 - G&C 530 Career Development and Information Services
 - G&C 540 Group Process I
 - G&C 610 Theories of Counseling
 - G&C 612 The School Counselor
 - G&C 620 Individual Appraisal in Guidance and Counseling
 - G&C 686 Counseling Practicum I
 - b. Elective Courses
These guidance and counseling courses are selected with the approval of the adviser and reflect the student's professional needs and objectives.
2. Cognate Areas (6-12 hours)
 - a. Required Course
EDP 677 Research Techniques or equivalent
 - b. Elective Courses
These cognate courses provide a knowledge and understanding of human development and behavior, the work setting, or meet career-related objectives and are selected with the approval of the adviser.

Students seeking counselor endorsement of their teaching certificates must provide evidence of their valid Michigan teaching certificates at the time of admission. These students are eligible to apply for counselor endorsement of their teaching certificates at the completion of their graduate programs of study.

COLLEGE STUDENT PERSONNEL PROGRAM

The following outline describes the general program requirements leading to a minimum of 32 semester hours of graduate study for those students seeking training and education as college student personnel professionals in higher education settings:

1. Major concentration in Guidance, Counseling, and Student Personnel (20-22 hours)
 - a. Required Courses (16 hours)
 - G&C 505 Counselor Development: Basic Skills
 - G&C 510 Counselor Development: Counseling Process
 - G&C 520 Standardized Group Testing
 - G&C 530 Career Development and Information Services
 - G&C 540 Group Process I
 - G&C 550 Student Personnel Services in Higher Education
 - G&C 551 Contemporary College Students
 - G&C 689 Field Work Experience/ Departmental permission required
 - b. Elective Courses (4-6 hours)

These elective courses in the college student personnel program reflect the student's professional needs and objectives and are selected with the approval of the adviser.
2. Cognate Courses (10-12 hours)
 - a. Required Course (4 hours)
 - EDL 613 Introduction to Higher Education
 - EDP 677 Research Techniques or equivalent
 - b. Recommended Courses (6-8 hours)

These courses will be selected with the approval of the adviser from such program areas as educational leadership, educational psychology, communications, psychology, sociology, economics, management, and marketing.

COMMUNITY COUNSELING PROGRAM

This expanded master's degree program is designed to prepare students to work specifically as counselors in community settings. The program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA). CACREP grants accredited status to graduate-level programs in the professional counseling field. Students graduating from this program are eligible for professional counselor licensure in Michigan.

The following outline describes the general program requirements leading to a maximum of 48 semester hours of graduate study for those students seeking training and education as community counselors.

1. Major Concentration in Guidance and Counseling (36-42 hours)
 - a. Required Courses (34 hours)
 - G&C 500 Helping Relationships: Basic Concepts and Services
 - G&C 505 Counselor Development: Basic Skills
 - G&C 510 Counselor Development: Counseling Process

- G&C 520 Standardized Group Testing
 - G&C 530 Career Development and Information Services
 - G&C 540 Group Process I
 - G&C 571 Cross Cultural Counseling
 - G&C 610 Theories of Counseling
 - G&C 622 Case Studies: Assessment and Intervention
 - G&C 631 Dynamics of Life Development
 - G&C 640 Group Process II
 - G&C 686 Counseling Practicum I
 - G&C 687 Counseling Practicum II
 - G&C 694 Seminar: Counseling in the Community
 - G&C 786, 787, 788, 789 Counseling Internship
- b. Elective Courses (2-10 hours)

These guidance and counseling courses reflect the student's professional needs and objectives and anticipated work environment and are selected with the adviser's approval.
2. Cognate Courses (6-12 hours)
 - a. Required course (2 hours)
 - EDP 677 Research Techniques or equivalent
 - b. Elective Courses (4-10 hours)

The student must have sufficient background in human growth and development. If the student does not have such a background, courses in human development, abnormal psychology, personality theory, etc. must be taken. Other courses are selected with the adviser's approval to help meet career-related objectives.

GUIDANCE AND COUNSELING COURSES

G&C 500 Helping Relationships: Basic Concepts and Services. Two sem hours
(Formerly Introduction to Guidance and Counseling)

Students are introduced to concepts and principles used in helping relationships and an overview of services offered by helping professions. The course provides experiences in interpersonal relations and opportunities for self-development. *Open to majors and non-majors.*

G&C 501 Guidance in the Elementary School. Two sem hours

The unique contributions of guidance to the work of the classroom teacher and other staff in the elementary school are surveyed. Relationships between guidance, instruction and administration in the elementary school are explored. *Open to majors and non-majors.*

G&C 505 Counselor Development: Basic Skills. Two sem hours

This course is designed to train prospective counselors for competencies in beginning counseling skills. Individuals assess their potential for counseling. Expectations are clarified for program, professional, and certification requirements; career opportunities are explored. *Open to majors and non-majors.*

G&C 510 Counselor Development: Counseling Process. Two sem hours

The course is designed to assist counselor trainees in understanding the counseling process. Opportunities are provided for continued training and integration of counseling skills. Various counseling theories are examined. Consulting skills and processes are introduced. *Prereq: G&C 500 Helping Relationships: Basic Concepts and Services; and G&C 505 Counselor Development: Basic Skills.*

G&C 515 Crisis Intervention. Two sem hours

The course focuses on crisis intervention from a theoretical and practical perspective. Emphasis will be on defining the nature of crisis; on intervention in specific crisis reactions resulting from such events as rape, loss, illness, etc.; and on responding to suicidal clients. *Prereq: G&C 505 Counselor Development: Basic Skills or equivalent.*

G&C 520 Standardized Group Testing. Two sem hours

This course is designed to familiarize students with various standardized group tests used in guidance and personnel programs. Emphasis is given to the development of schoolwide testing programs and to the interpretation and use of test results. *Prereq: G&C 500 Helping Relationships: Basic Concepts and Services; and EDP 677 Research Techniques.*

G&C 530 Career Development and Information Services. Two sem hours (Formerly Educational and Occupational Information)

This course includes an introduction to the psychology, sociology, and economics of work. Career development and decision-making theories are presented and are applied to career counseling programs. Informational services including sources, organization and evaluation of educational and occupational information are examined. *Prereq: Six semester hours in guidance and counseling courses or permission of instructor.*

G&C 540 Group Process I. Two sem hours

The course is designed to develop competencies in basic group facilitation skills and to identify verbal and non-verbal behaviors and group interactive processes. Opportunities are provided for participation in a small

group. Information is presented on the development and rationale of groups.

Prereq: G&C 500 Helping Relationships: Basic Concepts and Services; and G&C 505 Counselor Development: Basic Skills.

G&C 550 Student Personnel Services in Higher Education. Two sem hours (Formerly G&C 601)

This course includes an overview of student personnel services in higher education, their evolution and growth, educational significance, administrative aspects, and a survey of the various student services. Major emphasis will be given to role of personnel work in the educative process of students in colleges and universities, including junior and community colleges.

Prereq: G&C 500 Helping Relationships: Basic Concepts and Services.

G&C 551 Contemporary College Students. Two sem hours

An examination is made of the changing undergraduate lifestyle, attitudes, and characteristics. Focus is given to the dimensions of career education, outcomes/benefits of higher education, and the student as a learner. Attention is given to both the traditional and non-traditional college populations in two- and four-year institutions.

Prereq: Open to guidance and counseling majors and graduate students in related fields.

G&C 571 Cross Cultural Counseling. Two sem hours

Students will develop basic understandings and skills needed to counsel persons who are culturally, ethnically, or linguistically different from themselves.

Prereq: G&C 505 Counselor Development: Basic Skills or equivalent or permission of instructor.

G&C 572 Counseling Parents. Two sem hours

The course focuses on the significant parent counseling programs and techniques in current usage. Participants will have opportunities to utilize their learned counseling and communication skills in assisting parents to develop effective parenting skills compatible with their cultural, ethnic, religious, interpersonal, and social orientations.

Prereq: Graduate level status; and G&C 505 Counselor Development: Basic Skills or permission of instructor.

G&C 573 Counseling Older Persons. Two sem hours

Students will learn methods and strategies needed to help older persons face the crises, concerns, adaptations, and the changes associated with aging. Experimental component will teach modifications in counseling skills needed to work with older persons.

Prereq: G&C 505 Counselor Development: Basic Skills or equivalent.

G&C 587, 588, 589 Cooperative**Education. One, two and three sem hours**

A cooperative education experience integrating classroom theory with a paid work experience in an area directly related to the student's field of study. Placements must be approved by the Coordinator of Cooperative Education and the Leadership and Counseling Department. *Credit/no credit.*

Prereq: Departmental permission.

G&C 590, 591 Special Topics.**One and two sem hours
(Formerly G&C 596 Seminar in Counselor
Development)**

Special courses and seminars will be offered dealing with contemporary topics and issues in the guidance and counseling field. These counselor development offerings will be designed primarily for graduate students and practitioners in the helping professions. Topics to be selected. (See current schedule.)

Prereq: Will be determined on the basis of special topics being offered.

G&C 595 Workshop in Selected**Areas. Two sem hours**

Workshops will be offered dealing with selected areas within the guidance and counseling field. Workshops may include areas such as the self-concept, career education, psychological education, and other relevant topics of interest.

Prereq: Open to guidance and counseling majors and graduate students in related fields.

G&C 610 Theories of Counseling. Two sem hours

The rationale, historical development, and research underlying selected theories of counseling with emphasis on the implication of each theory for practice are explored. Students are encouraged to develop a theoretical basis for their own counseling practice.

Prereq: Ten semester hours in guidance and counseling.

G&C 612 The School Counselor. Two sem hours

Students will have the opportunity to develop skills and techniques for working effectively with students, kindergarten through grade 12, and to develop consulting and coordinating skills working with teachers, parents, administrators, referral agencies, and other personnel staff.

Prereq: Ten hours in guidance and counseling or permission of instructor.

**G&C 620 Individual Appraisal in Guidance and
Counseling. Two sem hours**

This course focuses on testing and non-testing procedures, techniques, and the processes of psycho-educational appraisal and their application to counseling,

guidance, and personnel work. Major emphasis is placed on the relevance of individual assessment to an increase in self-understanding.

Prereq: G&C 510 Counselor Development: Counseling Process; and G&C 520 Standardized Group Testing.

**G&C 622 Case Studies: Assessment and
Intervention. Two sem hours
(Formerly Case Studies in Counseling)**

An opportunity is available for advanced students to make an intensive study of selected counseling cases. An analysis of these cases will enable students to enhance competencies in gathering information; problem appraisal/assessment; diagnostic classification; selecting appropriate treatment strategies as well as case consultation and presentation.

Prereq: Ten semester hours in guidance and counseling.

**G&C 631 Dynamics of Life
Development. Two sem hours
(Formerly Dynamics of Vocational Life
Development)**

Life transitions and their impact on personal, social, and vocational development will be examined. Theoretical concepts and research findings on adult development will be examined. Practical program applications of individual and group counseling will be explored.

Prereq: G&C 530 Career Development and Information Services or permission of instructor.

**G&C 632 Vocational Rehabilitation
Counseling. Two sem hours**

The following topics related to the Division of Vocational Rehabilitation will be explored: history, organization, legislation and role of the vocational rehabilitation counselor; principles and practices of vocational rehabilitation counseling; interviewing, referrals, establishing eligibility, determining vocational objectives; case reporting; adjustment counseling; selective placement and follow-up; counseling needs of physically and mentally handicapped clients; case studies, and visits to rehabilitation agencies.

Prereq: G&C 530 Career Development and Information Services.

**G&C 640 Group Process II. Two sem hours
(Formerly G&C 542)**

This course provides an experiential learning situation for students as they participate in and examine interpersonal relationships within a small group setting. Opportunities will be provided for participants to develop and assess group facilitation skills.

Prereq: G&C 540 Group Process I or equivalent.

**G&C 650 Organization and Administration of
Guidance Services. Two sem hours**

The philosophy and principles of guidance as implemented into practice are studied. The organization and administration of the various guidance services and the

guidance functions of various school staff members will be examined.

Prereq: Ten semester hours in guidance and counseling.

G&C 660 Community Resources in

Counseling.

Two sem hours

Students will learn to identify, analyze, and develop the community resources needed by counselors who work in a variety of settings. Skills in identifying, referring and receiving client referrals also will be learned. Presentations by representative community agencies may be made in class or on-site during class time.

Prereq: G&C 505 Counselor Development: Basic Skills; and G&C 510 Counselor Development: Counseling Process or permission of instructor.

G&C 686 Counseling Practicum I. (Formerly G&C 680)

Two sem hours

An introduction to supervised counseling experiences is provided. Students are involved in a variety of counseling relationships, assisting individuals with personal, educational and vocational goals and decisions. Systematic analysis of counseling effectiveness is facilitated through a process of self, peer and supervisor evaluation. *Credit/no credit.*

Prereq: Permission of guidance and counseling faculty.

G&C 687 Counseling Practicum II. (Formerly G&C 685)

Two sem hours

As an advanced course in supervised counseling experience, students are involved in diverse counseling relationships designed to facilitate higher levels of counseling effectiveness. Group counseling experiences are also provided. *Credit/no credit.*

Prereq: Permission of guidance and counseling faculty.

G&C 688 Supervision of Counseling Practicum. (Formerly G&C 686)

Two sem hours

This course provides enrollees with the opportunity to supervise students in a counseling practicum experience. This includes the critiquing of tapes, leading group discussions and evaluating the growth of beginning counselors. *Credit/no credit.*

Prereq: Permission of guidance and counseling faculty.

G&C 689 Field Work in Guidance, Counseling and Student Personnel. (Formerly G&C 681)

Two sem hours

On-the-job experiences are provided under professional supervision that afford the student practical experiences in guidance, counseling, and student personnel. Settings for the field work may include elementary and secondary schools, colleges and universities, social and community agencies or other approved settings. *Credit/no credit.*

Prereq: Permission of guidance and counseling faculty.

G&C 694 Seminar: Counseling in the Community.

Two sem hours

This course represents an opportunity to explore various aspects of community counseling including counselor's roles, professional issues faced by counselors in community settings, and strategies for working with diverse clients. Emphasis will be on ethical and legal issues in counseling, credentialing of counselors and other mental health professionals, and understanding the needs and concerns of special client populations.

Prereq: Ten hours in guidance and counseling.

G&C 697, 698, 699 Independent Study.

One, two and three sem hours

In these classes students have an opportunity to explore topics of interest in an intensive and independent manner. Topics must be selected and an independent study pursued with the approval and supervision of a member of the faculty in guidance and counseling.

Prereq: Permission of the adviser, ten hours in guidance and counseling and departmental permission.

G&C 786, 787, 788, 789 Counseling

Internship. Two, three, four and six sem hours

As an intensive field-based experience for candidates in advanced studies in counseling and community counseling, this experience integrates advanced competencies and knowledge with professional supervision. Placements are made in a variety of community, school, college, or institutional settings. Candidates apply for the internship and are approved for placement prior to registration. Six hundred hours in the setting are required for the community counseling program. *Credit/no credit.*

Prereq: Ten semester hours of advanced studies course work and/or departmental permission.

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
G&C 500	X	X	X	X
G&C 501	X			
G&C 505	X	X	X	X
G&C 510	X	X	X	X
G&C 515		X	OR X	
G&C 520	X	X	X	X
G&C 530	X	X	X	X
G&C 540	X	X	X	X
G&C 550				X
G&C 571	X			
G&C 572				X
G&C 573	X			
G&C 591	X			X
G&C 595			X	
G&C 610	X	X	OR X	X
G&C 612	X			X
G&C 620	X			X
G&C 622				X
G&C 631	X			
G&C 632				X
G&C 640	X			
G&C 650	X			
G&C 660				X
G&C 686	X	X	X	X
G&C 687	X	X	X	X
G&C 688	X	X	X	X
G&C 689	X	X	X	X
G&C 694	X	X		
G&C 697	X	X	X	X
G&C 698	X	X	X	X
G&C 699	X	X	X	X

The above schedule is subject to modification because of personnel and enrollment changes. Consult the official class schedule for each term. Courses are offered each term through the Division of Continuing Education as a supplement to the above schedule.

SPECIAL EDUCATION

Kathleen S. Quinn
Department Head
215 Rackham
487-3301

Joan Quinlan
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Coordinator of Advising
230 Rackham
487-3302

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Adviser
Speech-Language Pathology
123 Rackham
487-4413

The curricula within the Department of Special Education have been revised. All students are urged to meet with their adviser before registering to verify enrollment in appropriate course work.

The Department of Special Education at Eastern Michigan University offers graduate programs leading to a specialist's degree, a master's degree or state certification in most fields of specialization. Persons participating in these programs may utilize a variety of approaches and experiences in fulfilling the needed requirements. These avenues of learning may include course work, field studies, workshops, independent study, internships, practica, seminars, and/or research projects.

OBJECTIVES

The general goals of graduate work within the Department of Special Education are:

1. to develop a comprehensive, viable, and scientifically defensible philosophical foundation that will guide personal and professional behavior;
2. to extend and refine knowledge of handicapping conditions and to apply this new knowledge base to understanding more fully the implications of handicapping conditions to handicapped individuals, their families and society;
3. to improve existing skills and to acquire new skills in the identification, diagnosis, and use of prescriptive teaching methods associated with various handicapping conditions;
4. to understand, compare, analyze, and synthesize a variety of therapeutic, curricular, and continuum of service models, instructional systems, and theoretical constructs used in the care and treatment of handicapped persons;
5. to acquire a working knowledge of the way philosophical positions, psychosocial factors, economic events, legal mandates, and political forces impinge upon and shape benefits, rights, services, and programs for the handicapped;

6. to enable the student to perform in a variety of leadership, administrative, and supervisory roles in providing services and programs for the handicapped;
7. to understand, conduct and use research for problem solving and professional growth; and
8. to provide the non-majoring student with basic knowledge and skills to understand, accept, and work more effectively with the handicapped in the mainstream of education.

SPECIALIST'S DEGREE IN SPECIAL EDUCATION

The Department of Special Education offers a specialist in arts degree designed to prepare highly qualified leadership personnel in two general areas of study:

1. administration and supervision of special education programs; and
2. curriculum development.

Admission Requirements

The graduate student seeking admission to this degree program is required to:

1. meet Graduate School admission requirements;
2. have a master's degree from an accredited institution;
3. have three years of documented teaching experience in special education;
4. have an endorsement in one area of special education;
5. submit three letters of recommendation;
6. have a successful personal interview; and
7. achieve acceptable scores on the Miller Analogies Test or the Graduate Record Exam.
8. International students must provide a score of 90 on the Michigan English Language Assessment Battery (MELAB) or 570 on the Test of English as a Foreign Language (TOEFL).

Program Requirements

The program requirements for the specialist's degree include:

1. a minimum of 32 hours beyond the master's degree;
2. an independent study;
3. an internship in the field of study;
4. oral and written examination near the completion of program;
5. an overall GPA of 3.3 ("B+") is required for graduation;
6. meet all other requirements of The Graduate School.

MASTER'S DEGREE IN SPECIAL EDUCATION

Through The Graduate School at Eastern Michigan University, the Department of Special Education offers a non-categorical master's degree that encompasses the range and depth required to accommodate contemporary programs and service delivery systems. The program is designed to allow maximum flexibility in meeting the needs of individual students while maintaining the basic academic integrity implicit in a graduate program.

Admission Requirements

The graduate student seeking admission to the master of arts degree program in the Department of Special Education is required to:

1. meet Graduate School admission requirements;
2. have a valid teaching credential (see graduate adviser for exceptions);
3. submit two letters of recommendation for admission to the program; and
4. have a successful personal interview with an assigned adviser or committee.
5. International students must provide scores of 90 on the Michigan English Language Assessment Battery (MELAB) or 570 on the Test of English as a Foreign Language (TOEFL).

Additionally, candidates applying for the learning disability sequence must possess an endorsement in a special education area.

Program Requirements

The graduate student seeking a master of arts degree through the Department of Special Education must:

1. complete a minimum of 32-36 semester hours of approved graduate credit;
2. complete an approved master's degree program that has been planned with a special education adviser;
3. complete the degree requirements within six years of enrolling for the first class applicable to the degree program; and
4. meet all other requirements of The Graduate School.

SPEECH-LANGUAGE PATHOLOGY

Students who seek admission to the graduate program in speech-language pathology may elect either a teacher certification or non-teacher certification track. Those who do not have undergraduate degrees in speech-language pathology must enroll as full-time students and complete the undergraduate deficiencies before entry into the graduate program. They must consult a graduate adviser in speech-language pathology before enrolling in major courses.

Admission Requirements

In addition to the requirements listed above, a student applying to the speech-language pathology program must:

1. have a 3.0 grade point average in the undergraduate major; and
2. submit two letters of recommendation from:
 - a. a clinic adviser and
 - b. a professor in the undergraduate major area of study.

Program Requirements

The program requirements for attaining a master's degree in speech-language pathology differ in some aspects from those of The Graduate School in that:

1. only six semester hours of transfer credit will be accepted; and
2. all candidates must meet the clinical and academic requirements for certification of the American Speech, Language and Hearing Association prior to receiving their degrees.

ENDORSEMENT/APPROVAL SEQUENCE

Graduate students wishing to qualify for teaching in an area of special education may enroll in an endorsement sequence at the graduate level. The endorsement sequence includes graduate and undergraduate courses and permits the student to teach in a specific handicapped area at either the elementary or secondary level. Each endorsement/approval sequence accommodates the requirements established by the Michigan Department of Education—Special Education Rules. Endorsement/approval sequences are available in the areas of emotionally impaired, visually impaired, hearing impaired, learning disabilities, physically or otherwise health impaired, speech and language impaired, physical education teacher for handicapped, director of special education, and supervisor of special education.

A student must be free from any probation, administrative or academic, before an internship or practicum experience is arranged. It is important for the student to realize that the endorsement/approval sequence is independent of a degree program. The minimum degree requirements do not guarantee endorsement/approval and the meeting of endorsement standards should not be construed as the completion of degree requirements.

Admission Requirements

1. The student applying for an endorsement in a specific special education area must meet the requirements specified under the master's degree.
2. The student applying for an approval sequence as a special education director or supervisor must meet the admission requirements for the specialist's degree.

DISMISSAL FROM PROGRAM POLICY

A student may be subject to dismissal from graduate endorsement or degree programs in this department if the student:

1. does not maintain a 3.0 ("B") cumulative grade point average overall and in special education courses for two successive enrollment periods;
2. does not demonstrate by performance reasonable aptitude, maturity, stability, skill, and understanding necessary for success in the professional field of special education.

A student identified as being at risk for dismissal from the endorsement or degree programs will have the opportunity to meet with faculty in the program area to develop a plan for correction of any deficiency.

The opportunity to correct deficiencies usually will not be extended beyond two enrollment periods.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty to apprise them of extenuating circumstances. The faculty decision will be final. The decision will be transmitted to the student in writing by the department. If the student is dismissed from the department's program, The Graduate School will be notified to change the admission status from degree admission status to that of a non-degree student.

ADDITIONAL PROGRAMS

In addition to the more specific courses that are offered for special education majors, the graduate program offers a number of general courses that are open to regular classroom teachers and other non-majors. These courses are designed to provide the student with a better understanding of the child with problems who might be found in any classroom. The Department of Special Education also is cooperating with the Departments of Psychology and Teacher Education to prepare people to be school psychologists. This program is described more completely under "Psychology."

GENERAL COURSES

SGN 510 The Handicapped Child in the Regular Classroom.

Three sem hours

A study of the nature and needs of handicapped children being educated in the least restrictive educational environment of the regular classroom. A review of philosophical and legal bases for mainstreaming. A discussion of issues, concerns and problems related to education of the handicapped in the mainstream of education. *Not open to students holding/completing special education endorsement.*

SGN 511 The Instruction and Behavior Management of the Handicapped in the Regular Classroom. Three sem hours

A study of the learning and behavioral needs of handicapped pupils in regular classroom settings. Review of the nature of learning styles, models of prescriptive teaching, and approaches to understanding and working with behavior problems. *Not open to students holding/ completing special education endorsement.*

Prereq: SGN 510 The Handicapped Child in the Regular Classroom.

SGN 515 Computer Application in Special Education. Two sem hours

Develops knowledge of hardware and software adaption needs for special education population and presents information about availability of each. Focuses on effective utilization of microcomputers with special population.

Prereq: Graduate special education major or departmental permission.

SGN 521 Sexuality for Persons with Disabilities. Two sem hours

Exploration of special problems, concerns, needs, and practices of persons with disabilities in relation to development of healthy human sexuality.

Prereq: Senior standing or graduate student.

SGN 585 Practicum: SXI. Four sem hours

This course is designed to meet the state requirements for teachers wanting to teach the severely multiply impaired. Students will complete a 180-hour supervised assignment in which they will plan for, teach, and evaluate instruction with SXI individuals and groups.

Prereq: An endorsement in one area of special education.

SGN 586 Practicum: Elementary Special Education. Four sem hours

This course provides a practicum experience for teachers having a secondary special education endorsement in mentally, emotionally, physically, visually, or hearing impaired.

Prereq: Secondary certification and endorsement in an area of special education.

SGN 587 Practicum: Secondary Special Education. Four sem hours

This course provides a practicum experience for teachers having an elementary special education endorsement in mentally, emotionally, physically, visually, or hearing impaired.

Prereq: Elementary certification and endorsement in area of special education.

SGN 590, 591, 592 Special Topics in Special Education. One, two and three sem hours (Formerly SGN 539)

Experimental courses designed to investigate specific topics of concern related to handicapping conditions.

SGN 605 Rehabilitation Counseling in Special Education. Two sem hours

Designed to integrate the theories and practices of social psychology; physical reconstruction, special education, and vocational guidance as they relate to life planning for the physically handicapped.

Prereq: Major/Minor.

SGN 613 The Slow Learner in the Classroom. Two sem hours (Formerly SGN 513)

Adjusting the curriculum for slow-learning children; problems of identification, methods and materials, curriculum modifications, and remedial techniques.

SGN 615 Social Psychology of the Handicapped: Family, School and Society. Three sem hours (Formerly SGN 515/615 Social Psychology of the Handicapped)

This course addresses the principles of social psychology of special needs and exceptional persons, infancy through adulthood, and the influence of the reciprocal interaction of the family, school, and society.

Prereq: Introductory special education and/or psychology course or departmental permission.

SGN 619 Administration and Supervision of Special Education. Two sem hours (Formerly SGN 519)

Organizing or improving a program for exceptional children; philosophical, legal, and practical aspects.

Prereq: SGN 510 The Handicapped Child in the Regular Classroom or equivalent and six hours in special education.

SGN 621 Law and Public Policy for the Handicapped. Three sem hours

An extensive study of state and federal legislation as it applies to the handicapped. Teacher responsibility and liability under law. The effect of case law and judicial decisions on future legislation.

Prereq: SGN 510 The Handicapped Child in the Regular Classroom or equivalent.

SGN 630 Integrated Curriculum and Educational Programming for Special Education. Three sem hours
(Formerly SGN 675 Psychoeducational Diagnosis and Educational Programming for Children with Learning Problems)

This course is intended for students interested in the learning characteristics, behaviors, and effective methods of teaching children who are usually labeled learning disabled, mildly retarded, emotionally disturbed, disadvantaged, and/or educationally handicapped. Following this course, students will be able to perform a diagnosis of children's abilities and achievement levels and determine the need for developmental or remedial programming as well as match the child's learning style with appropriate methods of instruction.
Prereq: Endorsement in one area of special education or permission of instructor.

SGN 632 Collaborative Consultation in Special Education. Two sem hours

Theories focusing on areas including group process skills, problem solving skills, and relevant consultation models will be introduced and discussed. Particular attention will be given to the development of skills supporting collaborative consultation as an interactive process and ways of working effectively with general education and related fields.

Prereq: An endorsement in one area of special education.

SGN 636 Roles of Resource Room Teachers and Teacher Consultants. Two sem hours

Students will develop a broad understanding of the concept of mainstreaming students into the "least restrictive environment." While the focus will be on the organization of resource rooms and teacher consultant services, the development of teacher instructional and communication skills, alternative models for delivery of service will be explored for addressing both general and special education needs. Specific role expectations and responsibilities of resource room teachers and teacher consultants will be thoroughly explored.

Prereq: SGN 632 Collaborative Consultation in Special Education and one endorsement in special education.

SGN 661 Advanced Assessment and Decision Making. Three sem hours

Examination of data base procedures for reviewing and making educational decisions regarding special education eligibility, program placement, and goals. Laws, special education definitions, behavioral and cognitive theory, administration interpretation of assessment techniques and materials, writing of educational prescriptions, and survey of service delivery systems.

Prereq: Admission to graduate program.

SGN 669 Occupational Information in Special Education. Two sem hours
(Formerly 569)

Experiences in securing information of cultural, social, educational, and occupational opportunities in the community for exceptional children; visits to industry, community, service agencies, and educational institutions.

Prereq: SGN 510 The Handicapped Child in the Regular Classroom, or equivalent.

SGN 679, 680, 681 Special Topics in Special Education. One, two and three sem hours

Experimental courses designed to investigate specific topics of concern in special education.

Prereq: Departmental permission.

SGN 683 Workshops. Two sem hours
(Formerly SGN 595)

Please check the current class schedule for specific offerings.

APPLICATIONS OF NEW TEACHING MATERIALS IN SPECIAL EDUCATION.

SGN 686, 687, 688 Internship in Special Education. One, two and three sem hours
(Formerly SGN 680, 681, 682)

Prereq: Permission of adviser.

SGN 689 Supervised Internship in Elementary School Education. Four sem hours
(Formerly SGN 594 Supervised Internship with Handicapped Children)

Supervised student teaching with handicapped children in local schools and institutions. *Credit/no credit.*

Prereq: Permission of adviser.

SGN 690 Supervised Internship in Secondary Special Education. Four sem hours

Supervised student teaching with secondary young adults in the disability area of preparation.

Prereq: Completion of secondary endorsement course sequence in mentally impaired, emotionally impaired, hearing impaired, visually impaired or physically or otherwise health impaired.

SGN 694 Interdisciplinary Seminar in Special Education. Two sem hours
(Formerly SGN 696)

An intensive study of selected problems in special education. *Credit/no credit.* Open only to majors in special education.

SGN 697, 698, 699 Independent Study. One, two and three sem hours

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

SGN 719 Advanced Seminar: Special Education Administration. Two sem hours

A structured colloquium covering current special education administrative practices, issues, procedures, and tasks specific to special education supervisors and directors.

Prereq: SGN 619 Administration and Supervision of Special Education.

EMOTIONALLY IMPAIRED COURSES

**SEI 503 Pre-Clinical Experience/Overview of Emotionally Impaired. Two sem hours
(Formerly SEI 583 Pre-Clinical Experience)**

Experiences that provide the student with an opportunity to work with impaired children, help students to understand these children and enable them to evaluate their own personal qualifications for working with children in their chosen field. Evaluations of the student's performance will be obtained from a supervisor. Graduate students in the area of the emotionally impaired will complete 150 hours of experience before the internship. *Credit/no credit.*

**SEI 510 Advanced Theory of Emotional Impairment. Three sem hours
(Formerly SEI 509/519 Emotionally Impaired Children)**

Focus will be on advanced behavioral concepts, cognitive psychology, biophysical research, ego psychology, and the psychoeducational approach. Students will acquire knowledge of current research and the contributions of these theories of maladjustments to understanding personality deviations.

Prereq: Introductory course work in psychological theory and special education are required.

SEI 512 Organization of Programs for the Emotionally Impaired. Two sem hours

Program variations and their adaptations for the education of emotionally impaired children; the theoretical and philosophical foundations of programs; behavior management techniques, teacher role, and professional relationships. *Not open to students with credit in SEI 401 Programming Methods and Curriculum for the Elementary Emotionally Impaired Child.*

Prereq: SEI 510 Advanced Theory of Emotional Impairment.

SEI 603 Therapeutic Management of Emotionally Impaired Children. Two sem hours

Techniques in dealing with emotionally impaired children; surface manipulation of behavior and life space interview.

Prereq: SEI 510 Advanced Theory of Emotional Impairment.

**SEI 614 Therapeutic Curriculum and Methods: Elementary Emotionally/Behaviorally Impaired. Three sem hours
(Formerly SEI 511 Methods and Curriculum for Emotionally Impaired)**

Emphasis is on the application of contemporary theories and research relative to the teaching of emotionally impaired elementary school aged children. Through lecture, discussion and simulated experiences, students will learn about instructional techniques, therapeutic management strategies and curriculum materials.

Prereq: SGN 630 Integrated Curriculum and Methods, SEI 510 Advanced Theory of Emotional Impairment and three core courses in special education.

SEI 616 Education of the Seriously Emotionally Impaired. Three sem hours

Educational techniques, programming, and curriculum design for severely emotionally impaired adolescents and/or youth in transition. For experienced teachers of emotionally impaired only.

Prereq: SEI 510 Advanced Theory of Emotional Impairment and SGN 630 Integrated Curriculum and Educational Programming for Special Education.

**SEI 620 Psychological and Educational Techniques for Emotionally Impaired. Two sem hours
(Formerly SEI 696)**

Advanced course for graduate students in the area of emotionally impaired. Variations in educational programming for the impaired and socially maladjusted are discussed. Each student is required to work individually with an impaired or maladjusted child to make an analytical, educational evaluation of the child's learning needs and to implement this analysis in a tutorial relationship with the child.

Prereq: SEI 614 Therapeutic Curriculum and Methods: Elementary Emotionally/Behaviorally Impaired and SEI 512 Organization of Programs for the Emotionally Impaired.

SEI 630 Introduction to Autism. Two sem hours

This course introduces the student to the definition of the syndrome of autism and the various theories with regard to cause and treatment. The student also is given an overview of the unique problems encountered in educating this severely impaired population including intervention strategies and techniques.

Prereq: Graduate students who have departmental permission and/or endorsement in one area of special education.

SEI 663 The Emotionally Impaired Child in the Regular Classroom. Two sem hours (Formerly SEI 563)

For regular classroom teachers who do not have training in dealing with the emotionally impaired child. The behavior of impaired children, techniques for dealing effectively with symptomatic behavior, a case study analysis of children being taught by individuals electing the course. This course does not apply toward certification to teach emotionally impaired children in special educational programs.

Prereq: Regular classroom teacher. Others with departmental permission.

SEI 694 Seminar in the Emotionally Impaired Child. Two sem hours (Formerly SEI 596)

Course consists of a review and discussion of some contemporary issues in the education of the impaired, following which students elect areas for more intensive exploration through library study or actual data gathering. Students present their results and conclusions to the group in a discussion setting.

Prereq: Departmental permission.

HEARING IMPAIRED COURSES

SHI 510 Survey of Education and Guidance for the Hearing Impaired. Two sem hours

A survey course covering the history of the education of the deaf; current educational programming; counseling, guidance, and vocational habilitation.

SHI 514 Speech for the Hearing Impaired I. Two sem hours

Analysis of the particular problems of speech of the deaf, methods of analyzing and transcribing speech, techniques for the development of the young deaf child.

SHI 518 Speech for the Hearing Impaired II. Two sem hours

Speech development and improvement for the older deaf child; includes supervised speech tutoring.

Prereq: SHI 514 Speech for the Hearing Impaired I.

SHI 522 Language for the Hearing Impaired. Four sem hours

The effects of hearing loss on language development, the structure of the English language and principles of grammar, a survey of the varying language methods with emphasis on Fitzgerald Straight Language System. Activities include field trips, preparation of lesson plans and teaching materials.

Prereq: SHI 510 Survey of Education and Guidance for the Hearing Impaired.

SHI 527 Signing Exact English in the Educational Setting. Two sem hours

Emphasis on increasing receptive/expressive sign language and finger-spelling as teaching tools. Includes identification of appropriate manually-coded systems of English for special-needs students/individuals.

SHI 554 Auditory Training and Speech-Reading for the Hearing Impaired. Three sem hours

Study the avenues of receptive communication available to the acoustically handicapped, methods of developing speech-reading skills, methods of training children with residual hearing, and the care and use of group and individual amplification equipment.

SHI 575 The Hard of Hearing Child. Two sem hours

A study of the diagnosis and educational planning considerations for the hard of hearing child as opposed to those for the deaf child. Educational innovations and technology as applied to the hard of hearing individual are studied.

SHI 582 Evaluation and Training for Hearing Impaired Infants. Two sem hours (Formerly SHI 682)

Management of hearing impaired infants, with emphasis on early language development, parent counseling, observation of hearing impaired infants and practice.

Prereq: SGN 251 Education of Exceptional Child and SLD 468 Education of the Child with Learning Disabilities.

SHI 673 Advanced Speech for the Hearing Impaired. Two sem hours (Formerly SHI 688)

Review of classical approaches, a study of recent research and practical application of findings to the development and improvement of speech for the deaf and hard of hearing. Includes supervised diagnostic and therapeutic practicum.

Prereq: Undergraduate major in education of the hearing impaired or speech pathology.

SHI 675 Secondary School Subjects for the Hearing Impaired. Four sem hours (Formerly SHI 686)

Principles and methods of teaching secondary school subjects to the hearing impaired, the improvement of reading skills and written composition, techniques of correcting language errors and adapting the regular school curriculum to meet the demands of the hearing impaired.

Prereq: Undergraduate major in education of the hearing impaired.

SHI 687 Auditory Training and Speech-Reading Practicum. Two sem hours
(Formerly SHI 593)

Sixty clock hours of directed observation and rehabilitation practice in the classroom with deaf children.

Prereq: SHI 554 Auditory Training and Speech-Reading for the Hearing Impaired.

SHI 689 Public School Internship. Four sem hours
(Formerly SHI 594)

Supervised teaching with hearing impaired persons. *Credit/no credit.*

Prereq: Undergraduate major in education of the hearing impaired.

LEARNING DISABILITIES COURSES

SLD 672 Methods: Elementary Learning Disabled. Three sem hours
(Formerly Methods for the Learning Disabled Child/SLD 683 Workshop: Sensory Training for Perceptually Impaired Children)

This course focuses on the basic principles of diagnostic-prescriptive education. Sensory/perceptual processing of information necessary for growth in achievement will be stressed. Listening comprehension, oral expression, basic reading skills, reading comprehension, mathematics and written language will receive emphasis. The delivery of services at the elementary level will be reviewed.

Prereq: SGN 251 Education of Exceptional Child and SLD 468 Education of the Child with Learning Disabilities.

SLD 673 Language: Acquisition, Disorders, Evaluation. Three sem hours
(Formerly SLD 683 Workshop: Language Problems of Neurologically Impaired)

This course presents information concerning normal language acquisition, descriptions of disorders of language development in handicapped populations, classroom evaluation techniques and guidelines for referral to a language specialist.

SLD 674 Methods-Secondary Learning Disabled. Three sem hours

This course focuses on the basic principles of diagnostic-prescriptive education. The achievement areas of language, reading, mathematics and written expression will receive emphasis. The delivery of services at the secondary level and application of skills to vocational education and content areas will also be covered.

Prereq: SGN 251 Education of Exceptional Child and SLD 468 Education of Children with Learning Disabilities.

SLD 678 Advanced Diagnostic Prescriptive Programming for the Learning Disabled. Three sem hours
(Formerly Diagnostic Prescriptive Programming for the Learning Disabled, SLD 683 Workshop in Diagnostic Procedures in Learning Disabilities/SLD 693 Seminar in Special Education I)

This course will apply learning disability theory, assessment and data interpretation to the writing of educational prescriptions and educational decision making procedures. Service delivery systems are also surveyed. This course prepares students for the diagnostic practicum in learning disabilities.

Prereq: Departmental permission.

SLD 683 Workshops. Two sem hours
(Formerly SLD 595)

Please check the current class schedule for specific offerings.

Prereq: Departmental permission

SLD 693 Practicum in Learning Disabilities. Four sem hours
(Formerly Diagnostic Practicum Learning Disabilities, SLD 593)

This course involves the intensive study of children having learning and behavior problems. Evaluation, planning, diagnostic teaching, consultation, and prescriptive writing are included.

Prereq: Departmental permission.

SLD 712 Research Colloquium: Learning Disabled. Two sem hours
(Formerly Consultation Skills in Learning Disabilities; SLD 694 Seminar in Special Education II)

An examination of current research dealing with theoretical and therapeutic implications for learning disabled children, adults, and their families. Individual investigation and presentation required.

Prereq: SLD 693 Practicum in Learning Disabilities and EDP 677 Research Techniques, or equivalent.

SPEECH AND LANGUAGE IMPAIRED COURSES

SLI 500 Introduction to Speech Pathology. Two sem hours

An overview of speech, language and hearing problems, their causes and the remedial procedures which the classroom teacher may employ. Disorders of Articulation. *Not open to students who have credit in SGN 271 Language Development in Special Populations. Graduate credit to non-majors only.*

SLI 508 Multicultural/Multilingual Communication Development and Disorders. Three sem hours (Formerly Variant English in the Education Process/Black Language in the Educational Process)

Survey of language and cultural influences of major racial and/or resultant communication patterns and differential diagnostic approaches to determine communication disorder or difference. Educational affects are also covered.

SLI 537 Clinical Practice in Hearing Testing. Two sem hours

Supervised practice in hearing testing including air and bone conduction, special procedures and speech audiometry.

Prereq: SLI 578 Audiometric Testing and departmental permission.

SLI 538 Clinical Practice in Hearing Therapy. Two sem hours

Supervised practice in auditory training and speech-reading with children and adults.

Prereq: SHI 554 Auditory Training and Speech-Reading for the Hearing Impaired and departmental permission.

SLI 550 Phonology. Two sem hours (Formerly Articulation)

A critical examination of the assumptions underlying the etiological, symptomatological, and therapeutic rationales currently used in articulation therapy and research.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 555 Neuroanatomy and Physiology for Speech Pathologist. Two sem hours

A lecture class concerned with development, maturation and function of the human central nervous system with emphasis on those neural structures and processes involved in the learning and usage of speech and language.

Prereq: Undergraduate major in speech pathology and departmental permission.

SLI 556 Anatomy of the Head, Neck and Trunk. Two sem hours

Detailed study of the skeletal, neurological, physiological, and muscular system of the head, neck, and trunk with special emphasis on the speech mechanism. Laboratory dissection will be a part of the course.

Prereq: SLI 316 Speech Science or equivalent. Undergraduate major in speech pathology and audiology.

SLI 558 Language Therapy. Two sem hours

Incorporating newly acquired or recently modified speech patterns into communicative behavior. Patterns and codes of language; the development of therapeutic activities for individuals with speech, hearing, or language impairments.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 562 Evaluation and Selection of Hearing Aids. Two sem hours

Interpretation of audiograms; electro-acoustic measurement of hearing aids; evaluation, selection, and care of hearing aids for the hearing impaired.

Prereq: Departmental permission.

SLI 568 Diagnostic Methods in Speech, Language and Hearing. Three sem hours

Diagnostic procedures and routines used in the evaluation of speech and language disorders. Emphasis on familiarization with available evaluative tools and practical experience in conducting actual diagnostic sessions; client interview, interpretation of test results, relating of information to parents and report writing.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 578 Audiometric Testing. Three sem hours

Advanced techniques of testing the auditory function; interpretation of audiograms, hearing aid evaluations and use of differential hearing assessment techniques for children and adults with hearing disorders. Lab required. No student on academic probation.

Prereq: SHI 392 Introduction to Audiology, departmental permission.

SLI 595 Workshop. Two sem hours

Please check the current class schedule for specific offerings.

Stuttering
Language Development

Prereq: Undergraduate major in speech pathology and audiology.

SLI 607 Colloquium in Speech Pathology. Two sem hours (Formerly SLI 696 Seminar in Speech Pathology)

An examination of current research dealing with theoretical and therapeutic implications in the various pathologies of speech. Opportunity for individual investigation and study provided. *Credit/no credit.*

Prereq: Undergraduate major in speech pathology and audiology.

SLI 610 Cleft Palate. Two sem hours
Nature and etiology of palatal and facial deformities, surgical procedures and related therapy. Observation of dental, medical, and social service agencies.
Prereq: Undergraduate major in speech pathology and audiology.

SLI 612 Motor Speech Disorders. (Formerly Cerebral Palsy) Two sem hours
Examines the nature, etiology, and treatment of speech disorders resulting from neuropathologies. Related intellectual, perceptual, social, and emotional problems will be considered as well as the neuromuscular symptoms. Current speech pathology approaches will be emphasized within a total therapeutic program.
Prereq: Undergraduate major in speech pathology and audiology.

SLI 614 Aphasia. Three sem hours
Designed to provide a theoretical framework for understanding the symbolic language problems of aphasia and current therapeutic approaches to the problem. Aphasia resulting from cerebral insult after language has been established, related physical, and behavioral disturbances.
Prereq: Undergraduate major in speech pathology and audiology.

SLI 616 Experimental Phonetics. Three sem hours
Theoretical consideration of speech as motor behavior and as an acoustical phenomenon, physiological and acoustical investigations of speech and voice, principles and methods of measuring speech action, and acoustical phenomena.

SLI 618 Language and Learning Theories. Two sem hours
The nature and functions of language and communication via linguistics, semantics and phonetics, with special emphasis placed on learning theories and their relationship to language; speech and communication behavior.
Prereq: Undergraduate major in speech pathology and audiology.

SLI 620 Consulting and Interviewing in Speech Pathology. Three sem hours
Instruction and experiences in preparing students to manage interviewing, consulting, and educational activities for families of speech and hearing handicapped and/or clients who are handicapped.
Prereq: Major in speech pathology, audiology or hearing impaired.

SLI 624 Neurogenic Communicative Disorders. Two sem hours
This lecture/discussion course will cover communication disorders, resulting from organic brain syndromes.

Among syndromes covered will be dementia, focal brain lesions, closed head injury, and the acute confusional state.
Prereq: SLI 555 Neuroanatomy and Physiology for Speech Pathologist.

SLI 652 Disorders of Voice. Two sem hours
An advanced course in disorders of voice involving a study of current literature and laboratory experiences with clinical equipment and case centered video tape recordings. Special emphasis on psychosomatic voice disorders and the voice problems of the laryngectomee.
Prereq: Major in speech pathology, audiology or hearing impaired; graduate status.

SLI 654 Stuttering II: Disorders of Fluency. Two sem hours
An advanced course in disorders of fluency involving research and the development of rationale for treatment of stuttering, cluttering, and disruption of speech rate resulting from organic pathology.
Prereq: Major in speech pathology and audiology; graduate status.

SLI 687 Clinical Internship in Speech Pathology II. (Formerly SLI 694) Two sem hours
Opportunity to practice speech correction in a clinical setting. Experience with children and adults with multiple handicaps.
Prereq: Undergraduate major in speech pathology and audiology.

SLI 689 Public School Internship in Speech Pathology. (Formerly SLI 594) Four sem hours
Supervised clinical practice with speech impaired persons. The first internship is completed in a public school setting. *Credit/no credit.*
Prereq: Undergraduate major in speech correction and concurrent enrollment in SLI 694 Seminar in Public School Speech Pathology.

SLI 694 Seminar in Public School Speech Pathology. (Formerly SLI 596) Two sem hours
Emphasizes professional ethics, organization, and administration of speech pathology programs in all settings. Includes state laws governing special education, professional growth and development and employment practices and procedures. *Credit/no credit.*
Prereq: Concurrent enrollment in SLI 689 Public School Internship in Speech Pathology I.

SLI 697, 698, 699 Independent Study. One, two and three sem hours
An intensive study of a problem or group of problems under the direction of a University faculty member. *Credit/no credit.*
Prereq: Departmental permission.

MENTALLY IMPAIRED COURSES

SMI 557 Mental Retardation: Nature, Needs and Issues. Three sem hours
(Formerly Mental Deficiency)

Investigates the nature and causes of mental retardation; addresses preventative aspects as well as the inherent social, legal and moral issues; current practices and emerging trends in school and society. *Not open to students who have credit in SMI 350 Introduction to Mental Retardation.*

Prereq: SGN 251 Education of Exceptional Child or SGN 510 The Handicapped Child in the Regular Classroom.

SMI 635 Program Development for Students with Severe Mental Impairment. Four sem hours
(Formerly SMI 565 Habilitation of the Trainable Mentally Impaired Child)

This course, required of graduate students working toward a master's degree with a focus on students with mental impairment, teaches the skills necessary to develop programs for students identified as TMI, SMI or SXI. Program development requires understanding and application of best educational practices in assessment, curriculum development and classroom management; and utilization of skills of paraprofessionals, families, and volunteers. This course is an excellent elective for those who are or will be professionals in related fields who will be working with these populations.

Prereq: SMI 427 Education of Mentally Impaired: Elementary, SMI 483 Educating Students with Severe Retardation or other special class; SGN 461 Classroom Management and Intervention Strategies for Handicapped Students, SGN 481 Adaptive Technology in Special Education.

SMI 683 Workshops. Two sem hours
(Formerly SMI 595)

Please check the current schedule for specific offerings.
Pre-School Culturally Deprived Mentally Impaired Children
Physical Education and Recreation for the Mentally Impaired

Prereq: SGN 510 The Handicapped Child in the Regular Classroom.

SMI 694 Seminar in Mental Retardation. Two sem hours
(Formerly Seminar in Mental Impairment)

A review and discussion of contemporary problems and issues related to the field. Recent developments and practices are critically analyzed. Course includes resource speakers and assigned topics for individual students/groups.

Prereq: Eight graduate hours in special education.

SMI 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly SMI 597, 598, 599)

Prereq: Departmental permission.

PHYSICALLY AND OTHERWISE HEALTH IMPAIRED COURSES

SPI 638 Developing Curriculum for Physically and Health Impaired. Two sem hours
(Formerly SPI 536 Methods of Teaching Physically Impaired Children)

For experienced teachers, a course in which curriculum models are researched and established methods of teaching are examined and drawn upon to develop an appropriate curriculum for students with physical disabilities and health limitations.

Prereq: Knowledge of the pathology of physical and health impairments and special education methodology for the physically and health impaired or permission of instructor.

OTHER COURSES

A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.

The following undergraduate courses in the Special Education Department may be taken for graduate credit, with the adviser's and The Graduate School's approval.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

General Special Education

- SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
- SGN 481 Adaptive Technology in Special Education (2)
- SGN 485 Methods and Curriculum: Adolescents and Young Adults with Special Needs (2)
- SGN 486 Recitation and Field Experience in Secondary Special Education (2)
- SGN 491 Seminar for Teachers of Special Education (2)

Emotionally Impaired

- SEI 401 Programming Methods and Curriculum for the Elementary Emotionally Impaired Child (4)
- SEI 488 Programming, Methods and Curriculum for the Secondary Emotionally Impaired (4)

Hearing Impaired

- SHI 436 Speech for the Hearing Impaired II (3)

- SHI 437 Adaptive Curriculum for the Hearing Impaired (3)
 SHI 487 Speech Practicum with Hearing Impaired (2)

Learning Disabilities

- SLD 468 Education of Children with Learning Disabilities (2)

Speech and Language Impaired

- SLI 452 Voice (3)
 SLI 454 Stuttering (3)

Mentally Impaired

- SMI 427 Educating the Elementary Student with Mild Retardation (2)
 SMI 483 Educating Students with Moderate or Severe Retardation (2)

Physically and Otherwise Impaired

- SPI 412 Ancillary Services and Health Procedures for Teachers of Physically Impaired (2)
 SPI 414 Educational Strategies for Teachers of the Physically Impaired (4)

Visually Impaired

- SVI 464 Methods of Teaching the Blind (3)
 SVI 465 Braille II: Nemeth Code (3)
 SVI 467 Education of Children with Impaired Vision (2)
 SVI 478 Electronic Communication - Visually Impaired (3)

Upper division undergraduate courses suitable for use as a cognate by majors in other fields:

- SLD 468 Education of Children with Learning Disabilities (2)

TEACHER EDUCATION

Jeanne Pietig
 Department Head
 234 Boone Hall
 487-3260

James T. Bushey
 Coordinator of Advising
 234 Boone Hall
 487-3260

The Department of Teacher Education offers ten programs leading to the M.A. degree; six in curriculum and instruction, three in educational psychology and one in social foundations. The six programs in curriculum and instruction are: early childhood education, elementary education, middle school education, secondary school teaching, K-12 curriculum and reading. The programs in educational psychology are: development and personality, research and evaluation, and educational technology. In addition, a 30 hour post-master's program is offered which leads to a Certificate of Advanced Studies in Curriculum and Instruction.

Graduate students seeking initial certification should consult the undergraduate catalog for certification requirements.

Specialist's Degree in Psychology

The program is an interdisciplinary effort among the Departments of Teacher Education, Psychology and Special Education and is coordinated through the Department of Psychology.

ADMISSION TO THE PROGRAM

The following procedures are common to all programs; however, some programs have additional procedures and these are presented following descriptions of the particular program.

Students must meet The Graduate School degree admission requirements. Undergraduate and graduate transcripts should be forwarded directly to The Graduate School at the time of application for admission. When the student indicates to The Graduate School the particular program to be pursued and the admission requirements of The Graduate School have been satisfied, The Graduate School forwards copies of the transcript(s) to the coordinator of advising for the particular program. After the student has received notification of admission to the program and the adviser's name, arrangements should be made for a conference with the adviser for the purpose of developing a program of study.

Once the program of study has been developed, a copy is filed with The Graduate School. Should the student wish to modify the program of study, approval

must be obtained from the adviser. The adviser reports all changes in program to The Graduate School.

CURRICULUM AND INSTRUCTION GRADUATE PROGRAMS

Early Childhood Education

The program in early childhood education is designed for the professional preparation of teachers and other early childhood education specialists who are interested in working with the age range of birth through nine years, or pre-kindergarten through third grade. Students can plan programs with their advisers that will enable them to meet the state of Michigan requirements for early childhood education endorsement (code Z.A.) for the elementary teaching certificate.

Elementary Education

The program in elementary education focuses on basic concepts of the child's growth, development and behavior and on the multi-dimensional aspects of the teacher's role. The purpose of the program is to provide the increased depth and breadth in theoretical foundations and practical knowledge which ensure more effective service as a classroom teacher in the elementary school. Students have the option of following one of these concentrations: children with special needs; social issues and social learning; open education; language arts, classroom applications of computer technology; gifted and talented; or individualized.

Middle School Education

The program in middle school education enriches the foundations' work in education while providing an opportunity to select courses which enhance understanding of the adolescent and the programs associated with the middle school. Emphasis also is placed on courses which improve teaching effectiveness.

Secondary School Teaching

The program in secondary school teaching enriches the foundations' work in secondary education while providing opportunity to select courses which enhance the teacher's understanding of secondary pupils and the secondary school curriculum. Emphasis is placed also on courses which strengthen teachers' competencies in their teaching fields.

K-12 Curriculum

The program in K-12 curriculum is designed for those whose professional interests and responsibilities recommend a broad understanding of the current controversies and trends in education and the historical, social and philosophical influences which have shaped the K-12 curriculum.

Reading

The program in reading is designed for the professional preparation of classroom teachers, special teach-

ers of reading at both elementary and secondary levels, supervisory reading specialists such as consultants, coordinators and supervisors, and specialists for reading clinic positions including clinic directors and reading counselors. The program is consistent with the "Minimum Standards for Professional Training of Reading Specialists" as defined by the International Reading Association. Students can plan programs with their advisers that will enable them to meet the state of Michigan requirements for an endorsement in reading.

The Certificate of Advanced Studies in Curriculum and Instruction (CASCI)

The Certificate of Advanced Studies in Curriculum and Instruction (CASCI), a 30 hour post-master's program, offers an opportunity for post-master's teachers to select and study experiences which are specifically related to their current professional needs. There are no pre-determined course requirements. Advisers approve program choices which teachers make in accordance with their individual desires for professional growth.

CASCI is offered in response to the need for relevant, flexible, individualized programs which will enable career teachers to keep abreast of new developments and to respond to the professional challenges in their classrooms and in their school districts.

A teaching certificate, a master's degree from an accredited university and a minimum of one year's teaching experience are prerequisite to acceptance in the program.

CURRICULUM AND INSTRUCTION

Admission to the Program

Generally, students entering the program possess a teaching certificate.

Students must meet Graduate School degree admission requirements. Undergraduate records should be forwarded directly to The Graduate School at the time of application.

A coordinator of graduate advising of the Department of Teacher Education will assign an adviser to each student following receipt of the proper records from The Graduate School and acceptance into the program. The student will receive notification of the adviser's name and should arrange a personal interview in order to develop a program of graduate study.

Degree Requirements

Candidates for the degree must:

1. complete all work indicated in the program of study;
2. complete a minimum of 30 semester hours which include the core or required courses;
3. pass all courses applicable to the degree with a "B" average;
4. fill out the application for graduation and obtain the adviser's recommendation; and
5. meet all other requirements for the degree adopted by The Graduate School of Eastern Michigan University.

CURRICULUM COURSES

CUR 510 Developing Creativity in the Classroom. Two sem hours
(Formerly Creative Activities in Elementary Education)

Helps teachers plan activities that encourage creativity in students. Emphasizes the direct teaching of creative thinking skills, developing a supportive classroom atmosphere and enhancing the teacher's personal creativity.

CUR 512 Enriching the Elementary Classroom Program. Two sem hours
(Formerly CUR 567 Enriching the Early Elementary Classroom Program)

Types of organization of elementary classroom activities and programs in relation to behavioral goals. Uses of direct and vicarious experiences, materials and instructional techniques to develop and extend vocabulary, language, experience backgrounds, self-concepts, and social learnings. Particularly beneficial for teachers working with educationally disadvantaged.

CUR 514 Integrating Consumer and Economic Education in the Elementary School. Two sem hours

Elementary teachers will become familiar with and use effective strategies and materials for integrating consumer and economic education concepts, skills, attitudes, and behaviors into various subject areas.

CUR 520 Issues in Middle School/Junior High Curriculum. Two sem hours
(Formerly The Junior High/Middle School Curriculum)

Issues involving the history and philosophy of the junior/middle school; curriculum, provision for individual differences, modern classroom procedures, use of materials and aids of instruction, the activity program, and guidance.

CUR 522 Effective Teaching in the Middle School. Four sem hours
(Formerly CUR 524)

This course is concerned with helping teachers examine the issues and possibilities of teaching middle school youth. Based on such an examination, each teacher works with other class members and the University professor in developing an effective teaching style within the context of his or her teaching situation.

Prereq: CUR 520 Issues in Middle School/Junior High Curriculum.

CUR 550 Improving Instruction. Two sem hours
(Formerly CUR 566)

Examines contemporary theories and research on teaching strategies and models, with emphasis on the applica-

tions of these to classroom problems. Students will experiment with and/or analyze the effectiveness of various teaching techniques.

CUR 551 Integrating the Curriculum Via School Camping. Two sem hours
(Formerly CUR 563)

A study of the history and purpose of school camping in Michigan. Students will develop their personal courses of study involving the integration of all curriculum areas as well as the skills to organize an outdoor education class for their personal classroom use. Students will be required to participate in a minimum of one weekend camping experience together as a class. Students will be expected to pay the actual cost for the weekend camping experience.

CUR/EDP 560 School and Classroom Discipline. Two sem hours

This course will review case studies, general teacher practices, and the theoretical base for classroom and school discipline management. Additionally there will be a review and critique of emerging legal issues, information systems and programs that affect discipline.

CUR 571 Teaching Secondary Social Studies. Two sem hours
(Formerly Teaching of Social Studies)

Subjects included in social studies at the secondary level, problems related to the presentation of materials, planning of units and types of class activities. *Not open to students who have credit in HIS 481 The Teaching of Social Studies and GEO 348 Teaching Social Studies in Elementary Schools.*

CUR 572 Education of the Gifted Child. Two sem hours
(Formerly SGN 561)

The identification of gifted students; the use of test results, psychological services and cumulative records. Curricula stressing enrichment and acceleration and the use of community resources; of special value to classroom teachers.

CUR 573 Curriculum and Teaching Strategies for the Gifted/Talented. Two sem hours

Study of curricular options and teaching models, and strategies appropriate for the differentiated learning needs of gifted/talented students.

Prereq: EDP 504 Nature and Identification of the Gifted or CUR 572 Education of the Gifted Child.

CUR 590, 591, 592 Special Topics. One, two, and three sem hours

Prereq: Departmental Permission.

**CUR 593 Microcomputer Applications
in the Social Studies. Two sem hours**

Through demonstrations and hands-on experiences, students will evaluate programs for use in the social studies. These will include software programs for tutorials, drill and practice, and simulations. An examination of the impact of computers on society will be an integral part of the course. Suggestions for developing units for using computers in the social studies will be included.

Prereq: A basic course in using microcomputers or permission of instructor and EDT 516 Computers in Instruction.

**CUR 600 Trends and Issues in Early Childhood
Education. Two sem hours
(Formerly Early Childhood Education;
CUR 587)**

A study of the historical, developmental, and curricular research of early childhood education; examination of current issues and trends, and their educational implications for early childhood professionals.

CUR 601 Helping Young Children in Crisis

Through Curricular Activities. Two sem hours
Examination of crisis situations that affect young children's lives; consideration of situations involving neglect, abuse, substance abuse in the home, abandonment, separation or divorce, and death. Applications are made to curricular activities and materials to help young children cope with these crises.

**CUR 602 Preschool Education. Two sem hours
(Formerly Teaching in the Preschool; CUR 584)**

An overview of programs for preschool children, infancy through age five, including program goals, selection of curriculum content, materials, and teaching techniques suitable for working with pre-kindergarten children.

**CUR 604 Directing a Child Care
Program. Two sem hours
(Formerly Planning and Implementing
Pre-Kindergarten Programs; CUR 585)**

The roles and responsibilities of the directors of part-time, full-day, enrichment and special child care programs, including licensing requirements, selection of equipment and personnel, budgeting, record keeping, and implementation of program goals.

Prereq: CUR 602 Preschool Education or instructor's permission.

**CUR 605 Kindergarten Education. Two sem hours
(Formerly Trends and Issues in Kindergarten
Education; CUR 586/606)**

Development of the kindergarten-aged child and educational implications for kindergarten education; historical and curricular approaches to kindergarten programming.

**CUR 606 Preschool and Kindergarten
Methods. Two sem hours**

Methods for preschool and kindergarten practitioners, planning and monitoring environments that permit active ways of learning in the arts, language arts, mathematics, sciences, health, and safety.

Prereq: CUR 602 Preschool Education or CUR 605 Kindergarten Education.

**CUR 616 Issues in Elementary School
Curriculum. Two sem hours
(Formerly Curriculum-Elementary Schools)**

Issues involving curriculum development determinants, approaches and the concept of change. Emphasis is on the role of the teacher in curriculum development.

**CUR 630 Issues in Secondary School
Curriculum. Two sem hours
(Formerly Curriculum-Secondary School)**

Students are encouraged to concentrate on curriculum problems in their schools involving issues of development, revision, and change in the secondary school.

**CUR 632 Individualizing Instruction
in the Secondary School. Two sem hours
(Formerly CUR 568)**

A course designed to help secondary teachers meet individual differences among their students by using a variety of resources, pupil involvement, thematic approaches, and other teaching strategies.

**CUR 655 Curriculum Foundations. Two sem hours
(Formerly CUR 540)**

Historical and theoretical authority for the curriculum; criteria for the choice of content; philosophical, psychological, and sociological bases of curriculum.

**CUR 656 Curriculum Design,
Implementation and Evaluation. Two sem hours**

This course covers curriculum design and development from goal selection through implementation and evaluation. Students will be expected to produce curriculum examples that are consistent with the principles in the course.

Prereq: CUR 655 Curriculum Foundations.

**CUR 657 The Open Classroom. Four sem hours
(Formerly CUR 564)**

The open classroom tied to a demonstration center, planning an integrated day based upon learning centers and pupil self-direction, the child-centered, experience-based curriculum. Designed to help free teachers to become more innovative, open, creative, and human in curriculum development.

**CUR 659 K-12 Curriculum. Four sem hours
(Formerly CUR 545)**

An integrated study of curriculum from preschool through high school with emphasis on form, priorities, and im-

pact. Historical and contemporary study of school programs from a social-humanitarian vantage point.

CUR 679, 680, 681 Special Topics. One, two, and three sem hours

CUR 682, 683, 684, 685 Workshops. One, two, three and four sem hours

CUR 686, 687, 688 Internship in Teacher Education. One, two and three sem hours

Provides a supervised opportunity for students to apply knowledge and skills gained through classroom activity in a "real world" working environment. Internship sites and supervisory arrangements must be approved by program adviser prior to registration.

Prereq: Departmental permission.

CUR 690, 691, 692 Thesis. One, two, and three sem hours

Prereq: Departmental permission.

CUR 694 Seminar: Secondary Curriculum. Two sem hours
(Formerly CUR 594)

Prereq: CUR 655 Curricular Foundations, CUR 520 Issues in Middle/Junior High Curriculum, CUR 630 Issues in Secondary School Curriculum or CUR 659 K-12 Curriculum, and 20 hours of graduate credit.

CUR 694 Seminar: Open Education. Two sem hours
(Formerly CUR 596)

Prereq: CUR 657 The Open Classroom and 20 hours of graduate credit.

CUR 694 Seminar: Early Childhood Education. Two sem hours
(Formerly CUR 596)

Systematic analysis of issues and research areas in early childhood education. Presentation of individual reports to seminar group for discussion. Serves as the capstone experience in the master's degree in early childhood education.

Prereq: Twenty hours of graduate credit including CUR 600; CUR 602 and EDP 677. (To be taken as the last course on master's degree)

CUR 694 Seminar: Elementary School Curriculum. Two sem hours
(Formerly CUR 596)

Prereq: CUR 616 Issues in Elementary School Curriculum and 20 hours of graduate credit.

CUR 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly CUR/RDG/597, 598, 599)

An intensive study of a problem or group of problems. The completed study must give evidence of

the student's ability to select a problem, set it up, and pursue it to satisfactory completion. Must be done with approval of a full-time member of the staff.

OTHER COURSES

The following upper division undergraduate courses also may be elected for graduate credit. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.* Consult undergraduate catalog for course descriptions and prerequisites.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

CUR 419 Instructor's Course in Driver Education (3)

CUR 420 Advanced Instructor's Course in Driver Education (3)

CUR 421 Seminar in Driver Education (2)

READING COURSES

RDG 518 Developmental Reading-Elementary. Two sem hours
(Formerly RDG 501/618)

Objectives, approaches, materials, and techniques for reading in the elementary school classroom. Factors influencing development, fundamental skills, assessing, and providing for individual strengths and needs. *Not open to reading majors.*

RDG 519 Programs in Language Arts. Two sem hours
(Formerly RDG 573/619)

Curriculum objectives and their implementation through listening, speaking, handwriting, spelling and creative, narrative and expository writing, evaluative procedures, and some consideration of corrective techniques.

RDG 530 Developmental Reading-Secondary. Two sem hours
(Formerly RDG 502/635)

Curricular objectives and their implementation through recommended activities, methods and materials; functional programs for disabled readers.

RDG 544 Fundamentals of Reading for Teachers of Adults. Two sem hours

Characteristics of the adult learner and teaching implications; organization and teaching of vocabulary development, comprehension, word recognition, study skills and reading-related skills for adults; emphasis on reading relevancy for adults.

RDG 545 Advanced Concepts in Reading for Teachers of Adults. Two sem hours

This course is designed for the adult educator who has a basic background in reading consisting of experience in course work in teaching reading to the adult illiterate. The emphasis will be on the diagnosis and remediation of reading problems presented in this population.

RDG 554 Reading Problems of Learners with Special Needs. Two sem hours (Formerly RDG 560)

Methods, materials, and assessment techniques found effective in teaching reading to learners with special needs; culturally different, mainstreamed, reluctant, and gifted learners.

Prereq: A basic course in the teaching of reading.

RDG 563 Foundations of Reading Development. Four sem hours (Formerly RDG 500/663)

A theory course emphasizing psychological, sociological, and linguistic foundations of reading development; issues and research in reading instruction; a survey of current methods and materials in reading with a focus on goals, reading skills, and evaluation techniques. This is the first course in the reading concentration area.

Prereq: An undergraduate course in the teaching of reading.

RDG 580 Reading-Writing Connection: K-6. Two sem hours

This course is designed to provide teachers opportunities to expand their knowledge of reading instruction to a more integrated approach which interfaces reading, writing, and subject areas.

RDG 590, 591, 592 Special Topics. One, two, and three sem hours

Prereq: Departmental permission.

RDG 593 Microcomputer Applications in Reading Instruction. Two sem hours

Participants will evaluate software for reading/language arts, including programs for drill and practice, tutorials, simulations, diagnosis and prescription, word processing, and management. Suggestions for developing units about computers in society will be included.

Prereq: One course in reading and ability to use a word processor.

RDG 636 Content Reading in the Secondary School. Four sem hours

This course is for secondary content area classroom teachers. Emphasis will be placed upon specific reading and study strategies needed to understand subject matter in the content areas.

RDG 664 The Nature of Common Reading Problems. Two sem hours (Formerly RDG 582)

Problems of under-achievement: weaknesses and deficiencies in attitudes, comprehension, work recognition and facility, and flexibility in silent and oral reading, physical, psychological, environmental, and educational factors. *Not open to reading majors.*

Prereq: A basic course in the teaching of reading.

RDG 665 Psycholinguistics and Reading. Two sem hours

An analysis of the reading process from a psycholinguistic perspective. Emphasis includes selected readings in language development, learning, and comprehension as each relates to reading.

Prereq: RDG 563 Foundations of Reading Development.

RDG 668 Diagnosis and Remediation of Reading Problems. Four sem hours

A survey of formal and informal procedures used in identifying, evaluating, and remediating reading problems in a classroom or clinical setting. Preparation of case studies and recommendations to teachers and parents; examination of current group and individual reading tests.

Prereq: RDG 563 Foundations of Reading Development.

RDG 670 Materials and Activities in Reading and Language Arts Instruction. Four sem hours

A practical course designed for teachers who see the need for creating and constructing aids for pupil learning in reading classes. This course combines the how and why of constructed materials by drawing on learning theory, child development, and creativity principles.

RDG 679, 680, 681 Special Topics. One, two and three sem hours

RDG 682, 683, 684, 685 Workshops. One, two, three and four sem hours

RDG 683 Workshop in Selected Areas. Two sem hours (Formerly RDG 595)

Please examine the current time schedule for specific workshop topics. Among those offered in the past: Providing for Individual Differences in Reading.

**RDG 689 Practicum in Reading. Four sem hours
(Formerly RDG 594)**

Opportunities to work with community children demonstrating reading difficulties. Under supervision, students will engage in the diagnosis, analysis, and treatment of various reading disabilities, maintaining a professional relationship with their clients, their clients' families, and associated schools or agencies. On-going study of current procedures in the analysis of reading performance critical to systematic diagnosis and prescription.

Prereq: RDG 563 Foundations of Reading Development, RDG 668 Diagnosis and Remediation of Reading Problems and departmental permission.

**RDG 690, 691, 692 Thesis. One, two, and three sem hours
Prereq: Departmental permission.****RDG 694 Seminar: Current Issues in Reading. Two sem hours
(Formerly RDG 596)**

The seminar is a culminating course in the graduate reading concentration. Current trends in reading research, critical examination of selected research studies and investigations, self-evaluations of professional needs, and interests in reading are included.

Prereq: Eight hours of graduate credit in reading. It is highly desirable to have completed EDP 677 Research Techniques.

RDG 697, 698, 699 Independent Study. One, two and three sem hours

An intensive study of a problem or group of problems. The completed study must give evidence of the student's ability to select a problem, set it up and pursue it to satisfactory completion. Must be done with approval of a full-time member of the staff.

EDUCATIONAL MEDIA

At the present time there is no graduate degree in educational media. Courses in educational media are designed to aid administrators, supervisors, directors, technicians, and teachers in all aspects of media and educational technology. There are specific courses in television, motion picture projections, production of materials; and resource material classification and utilization. If interested in courses in educational media, please check with your adviser.

EDUCATIONAL MEDIA COURSES**EDM 552 Audio-Visual Instruction. Two sem hours
(Formerly EDM 512)**

A survey course for teachers and administrators in which the nature and effective use of teaching materials are considered and fully demonstrated. Provision is made for actual use of materials and equipment. *Not open to students who have credit in EDM 345 Media for the Classroom Teacher.*

**EDM 553 Radio and TV in the Classroom. Two sem hours
(Formerly EDM 536)**

Study and practice in the utilization and evaluation of instructional, educational, and enrichment radio and television programs. Familiarization with broadcast methods and facilities. Includes utilization guidebooks and sources of materials.

**EDM 590, 591, 592 Special Topics. One, two, and three sem hours
Prereq: Departmental permission.****EDM 662 TV in Education. Two sem hours**
Extent and nature of experimentation in instruction by radio and television; current philosophy and attitudes toward teaching by radio and television.**EDM 679, 680, 681 Special Topics. One, two, and three sem hours****EDM 682, 683, 684, 685 Workshops in Selected Areas. One, two, three and four sem hours
(Formerly EDM 595)**

Please examine the current time schedule for specific workshop topics.

**EDM 683 Workshop in Production of Instructional Materials. Two sem hours
(Formerly EDM 595)**

Basic techniques in the production of a variety of teaching materials; lettering, mounting, and color application to flat pictures and graphics; projected materials of various sizes; overhead projectiles; display boards of all types.

Prereq: EDM 345 Media for the Classroom Teacher or EDM 552 Audio-Visual Instruction.

**EDM 683 Workshop in Television Utilization. Two sem hours
(Formerly EDM 595)**

For teachers; advanced problems in the use of television in the classroom.

EDM 693, 694, 695, 696 Seminars in Selected Areas. One, two, three and four sem hours

Please examine the current time schedule for specific seminar topics.

**EDM 694 Seminar: History and Appreciation of Motion Pictures and Photography. Two sem hours
(Formerly EDM 596)**

A course designed to give the history of the photographic medium with the emphasis on important films and photographs and the people who created them.

Prereq: EDM 345 Media for the Classroom Teacher, EDM 552 Audio-Visual Instruction or departmental permission.

EDM 694 Seminar: Instructional Materials. Two sem hours
(Formerly EDM 596)

A course designed to assist the individual student in detailed study of specific problems or topics in utilization, production, selection, or administration of instructional materials. Visits to actual service centers, use of resource persons, etc., will be employed. A sharing of solutions and problems will be used in a seminar setting during the course.

Prereq: EDM 345 Media for the Classroom Teacher, EDM 552 Audio-Visual Instruction or departmental permission.

EDM 697, 698, 699 Independent Study. One, two and three sem hours
Prereq: Departmental permission.

OTHER COURSES

The following upper division undergraduate courses also may be elected for graduate credit. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.* Consult undergraduate catalog for course descriptions and prerequisites.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

EDM 406 Storytelling (2)
EDM 414 Literature for Young Adults (3)

EDUCATIONAL PSYCHOLOGY GRADUATE PROGRAMS

The graduate programs in educational psychology are: development and personality, research and evaluation, and educational technology.

Students who select the development and personality concentration will become familiar with:

1. theories, research and issues regarding the growth, development and learning of children, adolescents and adults, and the application of this knowledge to classroom practice and everyday living;
2. theories, conditions, and practices which promote mental, emotional, and social well-being in the home, school, and other social settings;
3. the body of knowledge and skills in their chosen areas of personal interest such as techniques for modifying behavior, the role of play in development, recognition and facilitation of the creative process, identification of exceptional children, and the use of appropriate classroom methodology.

Students who select the research and evaluation concentration will become familiar with:

1. parametric and non-parametric statistical techniques and the application of these tests to the verification of hypotheses;
2. methods of conducting educational research which include problem formulation, review of related research, research design, measurement procedures, data analysis interpretations;
3. the field of data processing, the use of computers and other technology in instruction.

Students who select the educational technology concentration will be able to:

1. help educational institutions integrate technology, especially microcomputers into their instructional programs;
2. teach the operation and various uses of microcomputers in instruction, data based management and analysis;
3. act as a consultant to other educators in the area of computer applications and literacy.

In addition to the above, this program provides a foundation for the pursuit of advanced degrees in educational psychology or allied fields.

Admission to the Program

Generally, students entering this program possess a teaching certificate. However, those with vocational objectives clearly of an educational nature but not centered in a public school setting may request that teacher certification be waived.

The procedure for application for this program is as follows:

1. complete the departmental application form obtainable from the secretary of the department;
2. submit transcripts of all undergraduate and graduate work to The Graduate School and complete Graduate School application form;
3. submit Miller Analogies Test Score to The Graduate School if undergraduate GPA is below 2.75. Arrangements for the MAT may be made with the secretary of the Teacher Education Department.

Once the information has been received, it is reviewed by the coordinator of advising and appropriate faculty members. The undergraduate grade point average (a 2.75 average on a 4.0 scale is required), satisfactory performance on the MAT (a minimum score of 40), experience in related fields and personal recommendations will be considered when determining readiness for graduate study in this degree program.

Program Requirements

Each program of study must indicate which area of concentration (development and personality, research and evaluation, or educational technology) is being pursued.

The foundation courses are similar in the three tracks. These courses should be elected at the beginning of the program. The Seminar in Educational Psychology should come toward the end of the program.

The elective or supportive courses may include independent study and thesis credits. However, students seeking to gain admission to such must file application (available in the office of the Department of Teacher Education).

All students must complete a minimum of six semester hours of cognate or elective work in the development and personality and in the research and evaluation tracks.

Degree Requirements

Candidates for the master's degree in educational psychology must satisfactorily complete all work of the program of study, including the following:

1. a minimum of 30 semester hours of graduate credit applicable to the program;
2. a "B" (3.0 GPA) average for all work applicable to the degree;
3. the recommendations of an adviser in educational psychology and The Graduate School;
4. all other requirements for a master's degree adopted by The Graduate School of Eastern Michigan University.

Advising

The coordinator of advising is responsible for the admission and advising assignment of graduate students in the program. When a student is granted admission to the program, an adviser is immediately assigned.

The responsibilities of the adviser include:

1. assisting the student in the development of a program of study. This will include the selection of a concentration area and the choice of appropriate required and elective courses;
2. determining the applicability of transfer credits to the student's program of study;
3. conferring with the advisee concerning the nature of academic progress;
4. filing copies of the advisee's program of study with The Graduate School Office and the department.

Upon admission to the program, the student is expected to assume the following responsibilities:

1. consulting with an adviser in the Department of Teacher Education before registering for the first session or semester in the degree program;
2. preparing a program of study with the assistance and approval of the adviser;
3. obtaining permission of the adviser before making substitutions or altering the program of study which has been previously approved;
4. applying for graduation. Forms are available in The Graduate School and in the class schedule.

EDUCATIONAL PSYCHOLOGY COURSES

EDP 501 Psychology of Adolescence. Two sem hours
Study of the physical, cognitive, affective and social behavior and development of adolescents; their relation to family, peer group, school, and society with reference to youth here and abroad.

EDP 502 Basic Concepts in Educational Psychology. Two sem hours
Review and critical assessment of major issues in the areas of human growth and development, learning and technology, personality and mental health, and measurement and evaluation.

EDP 504 Nature and Identification of the Gifted. Two sem hours
(Formerly Identification of the Gifted)

The study of the nature of giftedness, the characteristics and needs of gifted students and the issues involved in the identification and development of the gifted.

EDP 507 Young Children in Poverty: Educational Implications. Two sem hours
Course analyzes the critical poverty conditions of young children and families, and implications for educators. Emphasis is on social-psychological development, edu-

cational advocacy, and interventions which promote understanding of ethnic, cultural, and socio-economic diversity.

EDP 509 Problems in Child

Psychology.

Two sem hours

Deals theoretically and practically with the many concerns felt by teachers and parents in regard to the various problems children face. Includes home, family, and school influences as creators of problems and approaches for dealing with these problems.

EDP 535 Measurement and Evaluation of Adult

Learners.

Two sem hours

Designed to assist teachers of adults to become familiar with the construction and uses of teacher-made and selected standardized tests suitable for placement, diagnosis, individualizing instruction and evaluating student achievement. Treats measurement issues unique to adult learners.

Prereq: Admission to a degree program for teachers of adults, or departmental permission.

EDP/CUR 560 School and Classroom

Discipline.

Two sem hours

This course will review case studies, general teacher practices and the theoretical base for classroom and school discipline management. Additionally, there will be a review and critique of emerging legal issues, information systems, and programs that affect discipline.

EDP 561 Questionnaire Design and

Analysis.

Two sem hours

Survey research: questionnaire design and construction, sampling techniques, data collection and analysis, and reporting results of student-generated questionnaire data. Background in descriptive statistics and research techniques would be helpful.

EDP 590, 591, 592 Special

Topics.

One, two and three sem hours

The content will include current relevant topics and will vary from term to term. Special topics not included in the usual course offerings but within the domain of educational psychology will be considered. See appropriate schedule.

EDP 600 Human Development.

(Formerly EDP 500)

Two sem hours

The study of social, emotional, physical and mental growth processes and developmental stages from birth through adolescence and their implications for learning and teaching. Students are expected to pursue an in-depth analysis of research, theory, and issues in the field commensurate with the experiential background which they bring to the course.

EDP 602 Psychology of the Adult

Learner.

Two sem hours

The course focuses on characteristics of the adult learner, adult learning styles, understanding learning theories, information processing, and principles of learning and motivation. Participants will discover their own strategies of learning, motivation, and decision-making, and skills in creating rapport with adult learners. Emphasis will be on the application of learning theory concepts and teaching skills to the participant's instructional setting.

Prereq: Admission to a degree program for teachers of adults, or departmental permission.

EDP 603 Principles of Classroom

Learning.

Two sem hours

(Formerly EDP 503)

Major principles of learning are examined for their applications in a classroom setting. Recent contributions are studied and the value of learning theories for the teacher is discussed.

Prereq: At least one course in human growth and development or psychology.

EDP 604 Essentials of Programmed

Instruction.

Three sem hours

(Formerly EDP 504)

Principles of programmed instruction are discussed and students examine programs and evaluate them. Students construct short programs in their areas of interest and revise and evaluate them. This is not a course in computer programming.

Prereq: At least one course in educational psychology, human growth and development or psychology.

EDP 605 Mental Hygiene.

Two sem hours

A study of the conditions and practices which promote mental, emotional and social well-being. Concepts are explored in terms of restoration, preservation, and elevation of mental health goals. This course emphasizes introspection and self-awareness, techniques and skills relevant to interpersonal relationships, and the application of principles and concepts to home, school, and other social settings.

EDP 606, 607, 608

Colloquium.

One, two and three sem hours

Academic seminars centered upon a broad field of study involving several different lecturers from within and outside of the department. See appropriate schedule for announcement.

EDP 610 Personality Theories for Educators. Two sem hours
(Formerly EDP 510)

A study of cognitive, psychoanalytic and social learning personality theories primarily for graduate students in educational psychology. The focus of the course will be on implementation of those theoretical approaches for problems in the classroom.

Prereq: EDP 600 Human Development or equivalent or departmental permission.

EDP 611 Piaget for Educators. Two sem hours
(Formerly EDP 511)

A systematic summary and analysis of Piagetian theory and research. Applications to the helping professions from infancy through adulthood will be made. Students will conduct interviews with children, adolescents, and/or adults and make recommendations for intervention. Students will evaluate educational materials and teaching strategies and instructional methods from a Piagetian framework.

Prereq: EDP 600 Human Development or equivalent.

EDP 612 Behavior Modification Techniques for School Personnel. Two sem hours
(Formerly EDP 512)

This course is designed for school personnel who are desirous of developing skills in the use of behavior modification in their settings. Students will learn and apply the principles of behavior modification to projects conducted in their institutions. Students who enroll in this course currently should be teaching or employed in an instructional setting.

Prereq: Current employment in an instructional setting or departmental permission.

EDP 614 Psychology of Creativity for Educators. Two sem hours
(Formerly EDP 514)

A study of the various aspects of creativity; the person, the environment, the process, with emphasis on their implications for teaching. The course also will focus on teacher procedures and methods for facilitating student creative behavior in the classroom.

Prereq: EDP 600 Human Development or equivalent or departmental permission.

EDP 618 Play and Human Development. Two sem hours
(Formerly EDP 518)

The phenomena of children's play and the relationships to developmental processes. Definitions, viewpoints, history, and theories of play. Applications to early childhood and elementary education. Students will conduct observations with children, adolescents, and/or adults.

Prereq: EDP 600 Human Development or equivalent.

EDP 619 Stress Management for Educators. Two sem hours

Description and analysis of the factors contributing to school personnel stress in the work environment. Utilizes relevant psychological theory to explain the basic theme of stress as an adjustment to one's environment. Specific techniques for reducing stress in school personnel and students are reviewed. *Credit/no credit.*

EDP 621 Statistical Applications in Educational Research. Two sem hours
(Formerly EDP 621 Statistics I: Descriptive Statistics)

Emphasizes the role of statistics in hypothesis testing; statistical applications in visually presenting and summarizing data; computation of central tendency, variability, relationship and prediction indices; and interpretation of results.

EDP 625 Eating Disorders: Recognition and Education. Two sem hours

Explores the psychological socio-cultural and treatment issues of anorexia nervosa and bulimia. Emphasis will be placed on the role school personnel may play in coping with this problem. Treatment specialists will guest lecture.

EDP 631 Measurement and Evaluation. Two sem hours
(Formerly EDP 531)

A study of the construction and use of teacher-made tests, rating scales, questionnaires, check lists, and similar measures. Also includes the administration of standardized tests and utilization of the results.

EDP 633 Systematic Observation, Checklists and Rating Scales. Two sem hours
(Formerly EDP 533)

An introduction to the techniques and tools of systematic observation; uses and limitations of checklists and rating scales in educational settings, methods of estimating, and improving the reliability and validity of such techniques and tools.

Prereq: EDP 631 Measurement and Evaluation and/or statistics or departmental permission.

EDP 641 Developmental Assessment of the Young Child: Theory and Practice. Two sem hours

Theory and procedures applicable to the evaluation and assessment of young children from birth through age nine. Consideration of current issues and formal and informal assessment of the young child. *No credit in EDP 341 Measurement and Assessment of Young Children.*

Prereq: One graduate course in early childhood education.

EDP 651 Statistics II: Inferential Statistics. Two sem hours
(Formerly EDP 551)

Inferential statistics, both parametric and non-parametric; theory of hypothesis testing.

Prereq: EDP 621 Statistical Applications in Educational Research or equivalent.

EDP 652 Statistics III: Analysis of Variance. Two sem hours
(Formerly EDP 631)

Involves statistical principles in experimental design through the study of single and multi-factor analyses of variance.

Prereq: EDP 621 Statistical Applications in Educational Research and EDP 651 Statistics II: Inferential Statistics or departmental permission.

EDP 674 Research Methods and Interpretation. Three sem hours

The understanding and application of research concepts, designs, and procedures; organization, coding, and calculation of descriptive statistics; use of statistical packages; critical evaluation of educational research; interpretation of results.

Prereq: EDT 507 Introduction to the Microcomputer or permission of instructor.

EDP 677 Research Techniques. Two sem hours
(Formerly EDP 592)

Basic concepts, procedures, and language of research; facets of research, i.e., problem formulation, research design, data collection, data analysis, and interpretation. Critical appraisal of published research.

EDP 678 Empirical Methods for Educational Research. Three sem hours

Emphasis is on the understanding of advanced empirical methods in education. Topics included are measurement procedures, research designs, data analyses and interpretations, and the use of the computer terminal.

Prereq: EDP 621 Statistical Applications in Educational Research or EDP 651 Statistics II: Inferential Statistics and EDP 677 Research Techniques or permission of the instructor.

EDP 687 Qualitative/Interpretive Research. Two sem hours

Course provides educators and other human service professionals who work in educational settings with training and competence in qualitative data-gathering methods and interpretive analysis. These include educational ethnography, phenomenology and action research.

EDP 690, 691, 692 Thesis. One, two and three sem hours

Prereq: Departmental permission.

EDP 697, 698, 699 Independent Study. One, two and three sem hours
(Formerly EDP 597, 598, 599)

Must be done with approval of a full-time member of the departmental faculty.

EDUCATIONAL TECHNOLOGY COURSES

EDT 507 Introduction to Microcomputers. Two sem hours

This introductory course will (1) build confidence and competence for educators with limited computer experience and (2) raise awareness of implications of computer technology in education. This course is not included as part of the program of study in the Educational Technology concentration. *Credit/no credit course.*

EDT 514 Logo for Educators I. Two sem hours

A first course in a powerful computer language and teaching philosophy for all ages. Major foci include activities with graphics, activities with words and lists, and using Logo with students.

Prereq: Competency in using a computer.

EDT 515 BASIC Programming for Educators I. Two sem hours

Students will be able to draw logical flow-charts; write, test, and debug programs. Students also will learn to use subroutines, subscripted variables, and how to convert BASIC programs from one microcomputer to another and understand the difference between the BASIC-plus and standard BASIC.

Prereq: EDT 507 Introduction to the Microcomputer or permission of instructor.

EDT 516 Computers in Instruction. Two sem hours

This introductory course will explore the role of computers in the instructional process. Students will learn how to evaluate educational software, how to use an authoring system and the variety of teacher utilities available.

Prereq: A basic course in using microcomputers or permission of the instructor.

EDT 517 Educational Applications of Computers I. Two sem hours
(Formerly EDP 617 Computer Applications in Education)

Develops computer literacy for educators. Includes computer terminology, the role of programming and the use of computers in education including some hands-on experience with instructional and record keeping applications. Requires no prior knowledge of computers or computing.

Prereq: EDT 507 Introduction to the Microcomputer or permission of instructor.

EDT 590, 591, 592 Special Topics. One, two and three sem hours
Prereq: Departmental permission.

EDT 614 Logo for Educators II. Two sem hours
 An advanced course in Logo. Students learn programming concepts and style, debugging, functional use of primitives in text and graphics, music, mathematics, teaching philosophy, and evaluation of current issues and research.
Prereq: EDT 514 Logo for Educators I.

EDT 615 BASIC Programming for Educators II. Two sem hours
 Students write interactive instructional computer programs using arrays (string and numeric), subroutines, mathematical functions, and machine codes (POKE, PEEK, CALL). Students create and retrieve data files, use high resolution graphics, and develop simulations.
Prereq: EDT 515 BASIC Programming for Educators I.

EDT 616 Technology of Instruction. Two sem hours
 (Formerly EDP 616)
 Classroom management of learning and instruction; the tools of instruction. Educational technology is more than the study of machines used in education.
Prereq: At least one course in educational psychology, or human growth and development, or psychology.

EDT 617 Educational Applications of Computers II. Two sem hours
 A hands-on experience with educational application of computers. Students will learn how to use word processing software to prepare tests, handouts, letters, and papers; spread-sheet programs to maintain student grade-books and prepare budgets; authoring systems to prepare computer assisted instructional materials, data-base managers to maintain student and school records; and information utilities as information and communication media.
Prereq: EDT 507 Introduction to the Microcomputer, EDT 517 Educational Applications of Computers I or permission of the instructor.

EDT 618 Microcomputer Communications for Educators. Two sem hours
 Students will learn how to set up and use communications equipment, select and use telecommunications software, send electronic mail, how to use information services, bulletin boards, transfer data and programs between microcomputers, and use of teleconferencing services.
Prereq: EDT 507 Introduction to the Microcomputer, EDT 517 Educational Applications of Computers I and EDT 617 Educational Applications of Computers II.

EDT 623 Instructional Design. Two sem hours
 Introduces the student to the design and development of instructional systems. Topics surveyed include needs assessment, learner analysis, task analysis, specification of instructional objectives, selection of instructional strategies and media, and formative evaluation.
Prereq: Graduate Standing; EDP 603 Principles of Classroom Learning.

EDT 625 Designing Computer-Mediated Instruction. Two sem hours
 Design of computer-mediated learning: The content will focus on four major areas—design issues, research related to CMI, lesson development, and project management.
Prereq: Graduate standing.

EDT 676 Using Computers for Data Analysis. Two sem hours
 Use of statistical packages available for micro- and main-frame computers to organize, code, create, edit, manage, store, and process data. Compare statistical packages. Write research reports interpreting educational data results.
Prereq: EDT 507 Introduction to the Microcomputer and EDP 674 Research Methods and Interpretation; or EDT 507 Introduction to the Microcomputer, EDP 621 Statistical Applications in Educational Research, and EDP 677 Research Techniques or permission of instructor.

EDT 690, 691, 692 Thesis. One, two and three sem hours
Prereq: Departmental permission.

OTHER COURSES

The following upper division undergraduate course may be elected for graduate credit. *A maximum of nine hours of undergraduate course work are permitted in the earning of any graduate degree.* Consult undergraduate catalog descriptions and prerequisites.

If you intend to enroll in the following undergraduate course for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

EDP 402 Learning in the Later Years (3)

SOCIAL FOUNDATIONS OF EDUCATION GRADUATE PROGRAM

This program has been designed to complement, extend and enrich the education a teacher receives at the undergraduate level. One of the goals of the program is to understand the forces—economic, political and social—that are shaping the structure and control of education. Of particular interest is to understand the diversity of American culture and its impact upon a democratic society. With attention to all subjects and grades from pre-school through college, the program offers opportunities for professional educators to build better relationships with others in the school setting and to enhance the knowledge of and sensitivity to the community and society in which they live and work. Students who successfully complete the program of graduate study in social foundations receive the master of arts degree.

Program Description and Degree Requirements

The master's degree program, which requires earning a minimum of 30 semester hours credit, is organized so as to facilitate the development of an individual program for each major student which provides for concentration in one of five social foundations sub-fields and opportunity for relating such specialization to the integrative, interdisciplinary nature of the social foundations. Of the total of 30 hours, at least 16 hours must be in social foundations courses and two hours in a curriculum foundations course.

When students have completed at least 20 hours, they will enroll in SFD 693, 694, 695 Advanced Seminar. During the seminar, or following it, the student and adviser will consult to determine what additional capstone experiences are desirable. It is anticipated that the student's experience in the conduct of an interdisciplinary study of substance and depth (in the seminar) will provide the substantive basis for deciding upon similar further studies.

The remaining hours will be devoted to additional cognates or electives and further social foundations course work, seminars, independent study or thesis which the student and adviser determine to be particularly integrative for that individual student's program.

Admission Requirements

Admission to the program will require that the applicant hold a baccalaureate degree from an accredited institution and meet the degree admission requirements of The Graduate School. This requires a 2.50 grade point average or conditional admission as specified on page 19 of this catalog. For regular admission, the applicant must hold a valid teaching certificate or have successfully completed an education major or minor or equivalent. Further, the applicant must have completed 15 hours in the social sciences. This includes the fields defined as social sciences in the EMU Undergraduate Catalog, plus courses in philosophy and religion. For those teacher applicants who do not meet the requirements for regular admission, conditional admission (including a clear specification of actions necessary for regular admission status) may be granted. It is anticipated that, in a few instances, students who are not and do not intend to become teachers may wish to seek the master's degree in social foundations. In addition, some students may choose to combine study in the social foundations of education with completion of initial certification as teachers. When such intentions are based on clear understandings of the program, the teaching certificate requirement may be waived.

Students who wish to apply for admission to the program leading to the degree of master of arts in the social foundations of education may make application in The Graduate School Office. When the application has been processed by The Graduate School, the student is contacted by the coordinator of advising to arrange for an adviser and to develop a schedule for completion of degree requirements. Recommendations concerning admission and the proposed course of study are reviewed and acted upon by the full faculty in social foundation.

NOTE: The social foundations courses are under review and changes may be expected during the life of this catalog. Students are urged to consult with their advisers in the social foundations area.

SOCIAL FOUNDATIONS COURSES

SFD 500 Social Foundations of Education: An

Introduction.

Two sem hours

An overview presented by varied staff members of the major areas of social foundations of education: educational sociology, educational anthropology, educational philosophy, educational history, and comparative education.

SFD 540, 541, 542 Field Studies in Comparative

Education.

One, two and three sem hours

A study of selected aspects of education and the environing society by visits to and periods of residence in one or more other nations. Previously studied: East Africa, England, India, the Philippines, Scandinavia. Summers only typically.

SFD 550 Philosophy of Education. Two sem hours
Philosophical study of educational questions, the nature of being human, what should be learned, who is educable, the ends of education, personal meaning of philosophical questing.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.

SFD 560 Anthropology of Education. Two sem hours
An overview of the learning process in human societies addressing universal problems of motivation, selectivity, thinking-remembering, forgetting, language and thought, value orientation, and cultural sets.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in sociology or anthropology for non-majors.

SFD 572 History of American Education. Two sem hours

Historical precedents of present educational circumstances; the developmental background of modern school crises; a study of problems and answers, successes and failures in America's schools.

Prereq: SFD 500 Social Foundations in Education: An Introduction for majors; course in American history for majors and non-majors.

SFD 580 Sociology of Education. Two sem hours
Examined here are selected points of view and empirical studies on social organization, social change, policy-making, power and authority structures, social class system, and social movements in relation to the school as an institution.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in sociology for majors and non-majors.

SFD 590, 591, 592 Special Topics. One, two and three sem hours

Prereq: Departmental permission.

SFD 601 History of Educational Thought. Two sem hours
(Formerly SFD 501)

A study of the history of educational thought as a means of understanding the evolutionary process by which modern concepts of education developed.

Prereq: SFD 500 Social Foundations of Education: An Introduction or an undergraduate course in Western history of philosophy.

SFD 602 Progressivism in American Education. Two sem hours
(Formerly SFD 502)

The genesis and development of pragmatism; the special contributions of Pierce, James, Mead, and Dewey; the educational theories and practices of the Progress-

ivists: Bode, Kilpatrick, Counts; present thought and new influences.

Prereq: SFD 500 Social Foundations of Education: An Introduction or an undergraduate course in Western history or philosophy.

SFD 603 Groups in Schools. Two sem hours
(Formerly SFD 503)

Examines schools and classrooms as social organizations; considers dynamics of interpersonal behavior in large and small settings; examines such phenomena as roles, statuses, communications, and patterns of influence.

Prereq: SFD 580 Sociology of Education for majors; for non-majors SFD 580 Sociology of Education or one course in psychology or sociology.

SFD 604 Delinquency and Schools. Two sem hours
(Formerly SFD 504)

Nature, meaning, causal factors, and conditions of delinquency in home, school, and community; problems in personality and behavior; the juvenile courts; delinquency prevention and control programs. Opportunity to study problems of particular individual interests. *Not open to students who have credit in SOC 354 Juvenile Delinquency.*

Prereq: SFD 580 Sociology of Education for majors; for non-majors, SFD 580 Sociology of Education or one course in psychology or sociology.

SFD 624 Education for What and Whom: A World View. Two sem hours
(Formerly SFD 524)

Why should people be educated? Who should be educated? What should this education accomplish? What form should it take? What methods should we use? These questions, viewed in world perspective, may suggest some workable answers. A course in comparative education.

SFD 625 Power and Influence in Education: A Cross-Cultural View. Two sem hours
(Formerly SFD 525)

Designed to increase participation and effectiveness of educators in the decision-making process, the course examines cross-culturally the structure and dynamics of power in education, emergence of pressure groups and integrative mechanisms to minimize conflicts between power groups.

SFD 626 Schools, Poverty, Population: Selected Problems in Comparative Education. Two sem hours
(Formerly SFD 526)

Education in various societies; e.g., agrarian, capitalist, totalitarian, preliterate, etc., is studied to discern how policies and practices of schools affect and are affected by the problems of poverty and population, e.g., fertility control, world food problems, education as capital, economic development as educational purpose, etc.

SFD 627 Social Problems in the Schools: International Perspectives. Two sem hours
(Formerly SFD 527)

This course in comparative education addresses attention especially to the interactions of school and selected societies throughout the world and the problems of delinquency, mental health, multiculturalism, racism and sexism, and institutional change.

SFD 651 Analysis of Educational Concepts. Two sem hours
(Formerly SFD 551)

Philosophical analysis of concepts central to the processes of education; learning by doing, teaching as telling, and the curriculum as content, knowing "that" and knowing "how."

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.

SFD 652 Pragmatism and Education. Two sem hours
(Formerly SFD 552)

Consideration of pragmatists' psychology, sociology, ethics, social philosophy and their influence upon educational psychology and practices.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.

SFD 653 Existentialism and Education. Two sem hours
(Formerly SFD 553)

An historical and comparative analysis of the relationship of pragmatism to existentialism; factors which affect theories and practices of American education.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.

SFD 662 Cultural Determinants of Learning. Two sem hours
(Formerly SFD 562)

The educational theories and practices in literate and pre-literate societies as illustrative of various theories of cultural dynamics and change which relate to citizens who will be living in the twenty-first century; the rela-

tionship between culturally held values and the learning process.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in sociology or anthropology for non-majors.

SFD 671 Development of European Education. Two sem hours
(Formerly SFD 571)

Consideration of ancient traditions as the Graeco-Roman and Hebraic-Christian and such modern forces as nationalism, democracy, science, and industrialization in terms of their impact on educational development in selected European countries. Focus is upon organization, philosophy, curriculum, methods of instruction, and evaluation.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in history of Western civilization or history of Europe for non-majors.

SFD 673 Black Experience and American Education. Two sem hours
(Formerly SFD 573)

The role of African-Americans in the development of the United States. The course is designed to help teachers to understand the cultural, economic and political contributions of African-Americans and to develop materials to be used in their courses at both elementary and secondary schools.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in American history for others.

SFD 679, 680, 681 Special Topics in Social Foundations. One, two and three sem hours
(Formerly SFD 539)

This course number is used for an experimental offering of the department when a course is being given a trial run in a given semester.

SFD 682, 683, 684, 685 Workshop. One, two, three and four sem hours
(Formerly SFD 595)

Designed each semester to consider particular themes or issues; e.g., racism and education, human relations in schools, and providing a basic empirical orientation with attention to teaching resources and skills. Student-faculty planning, small group discussions are used extensively. May be selected more than once.

Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; consent of advisers for non-majors.

SFD 690, 691, 692 Thesis. One, two and three sem hours

Prereq: Departmental permission.

COLLEGE OF HEALTH AND HUMAN SERVICES

DEAN: Elizabeth C. King
212 King Hall
487-0077

DEPARTMENTS

Associated Health Professions
Human, Environmental and Consumer Resources
Social Work
Certificates only: Social Work and Gerontology

ASSOCIATED HEALTH PROFESSIONS

Stephen A. Sonstein
Department Head
328 King Hall
487-0460

The Department of Associated Health Professions offers the master of science degree in occupational therapy. In addition, the department offers graduate level courses in clinical laboratory sciences and health administration that may be used as cognates in other master's degree programs with the permission of the student's adviser.

Students who satisfy the admission requirements of The Graduate School and who have fulfilled the specific course prerequisites are eligible to enroll in these courses.

MASTER'S PROGRAM IN OCCUPATIONAL THERAPY

Ruth Ann Hansen
Graduate Coordinator/Adviser
324 King Hall
487-0461

The occupational therapy program at Eastern Michigan University has a long and rich history of providing high quality baccalaureate level professional education. Since the early 1940s, this program has been meeting the ever increasing demand for occupational therapists in our state. Currently the faculty are nationally recognized as excellent educators and for their numerous contributions to the profession through their participation in professional organizations and their scholarly pursuits. The strength of this faculty is the essential underpinning for the new master's degree in occupational therapy.

This program is available to persons who have completed an undergraduate degree in occupational therapy and wish to receive advanced education in their discipline. The program is designed to allow students to attend on a full- or part-time basis. Courses in the major are offered in the late afternoon or evening to accommodate those therapists who are working full-time.

Program Objectives

This program is designed to provide credentialed occupational therapists with skills necessary to pursue research and other scholarly endeavors. The student will have the opportunity to critically analyze the profession of occupational therapy, to acquire basic research skills, and to gain relevant knowledge from related areas of study and apply it to occupational therapy.

Program Design

The student will establish a plan of study with the graduate adviser in the first semester after admission to the program. The program will consist of the following requirements:

1. Minimum of 30 hours for a masters degree.
2. Minimum of 15 hours of occupational therapy courses.
3. Minimum of 6 hours of research and statistics courses.
4. Minimum of 8 hours of cognate courses. (Each student will select an area of concentration based on individual interests and career goals.)

Admission Requirements

An applicant for admission must:

1. meet The Graduate School's degree admission requirements,
2. provide proof of certification as an occupational therapist,
3. have a cumulative GPA of 3.0 or better in entry level occupational therapy courses, and
4. have completed at least one year of practice.

Conditional admission may be granted for a probationary period of two semesters or six credit hours to students who do not meet the minimum GPA requirement.

GRADUATE COURSES

OT 520 Advanced Theory of Practice.

Two sem hours

Introductory graduate course to be taken by all entering students. Provides students with a systematic method for analyzing areas of practice.

Prereq: Admission to program.

OT 530 Critique of Occupational Therapy Theory.

Two sem hours

Provide the student with the opportunity to critically examine the major models of occupational therapy practice.

Prereq: OT 520 Advanced Theory of Practice.

OT 640 Methods of Occupational Therapy Research.

Two sem hours

In this course, students will examine the current status of research in occupational therapy, identify the research design concerns which are inherent in the profession, and develop a thesis proposal.

Prereq: OT 520 Advanced Theory of Practice, OT 530 Critique of Occupational Therapy Theory, and the required series research and statistics courses.

OT 679, 680, 681 Special Topics in Occupational Therapy. One to three sem hours
The content of these courses will vary from semester to semester. Topics in occupational therapy will be covered which are not offered in regular course offerings.

OT 692 Thesis. Three sem hours
Individual research conducted under the guidance of, and in consultation with, a thesis committee and the graduate coordinator.
Prereq: OT 520 Advanced Theory of Practice, OT 530 Critique of Occupational Therapy Theory, OT 640 Methods of Occupational Therapy Research.

OT 693, 694, 695, 696 Seminar in Occupational Therapy. One to four sem hours
The focus of these courses will vary from semester to semester. These courses are designed to allow intensive analysis of specialized occupational therapy content.

OT 697, 698, 699 Independent Study. One to three sem hours
An intensive study of problem or group of problems under the direction of a University faculty member.
Prereq: Permission of graduate coordinator.

OTHER COURSES

CLS 577, 578, 579 Special Topics in Clinical Laboratory Sciences. One to three sem hours
Advanced level courses covering specific topics in clinical laboratory sciences.
Prereq: Permission of instructor.

CLS 597, 598, 599 Independent Study. One to three sem hours
Independent original endeavors involving library and/or laboratory work under the guidance of a clinical laboratory sciences program faculty member.
Prereq: Permission of instructor.

HAD 510 Medical Care Organization. Three sem hours
A theoretical approach to the medical care system that allows the consideration of the key problems and issues such as DRG-based prospective payment, alternative delivery systems and cost quality trade-offs.
Prereq: Graduate student status.

HAD 511 Health Law. Three sem hours
Legal aspects of health law for the design, administration, and regulation of health care services will be explored from the alternative perspectives of providers, reimbursement sources, government, and professional accreditation. Contract, tort, advocacy, enforcement of regulations, and other topics will be covered as well as

the controversial issues of the definition of life and death, informed consent, medical malpractice, liability, and legal entitlement of health care services.
Prereq: Graduate student status or senior status with minimum 2.8 GPA.

HAD 512 Reimbursement for Health Care Services. Three sem hours
This is a survey of the full range of public and private sector methods of reimbursing health care services. The course covers all aspects of private health insurance, Blue Cross and Blue Shield, Medicare, Medicaid, welfare health care reimbursement, government regulation of health insurance, national health insurance proposals, and the problem of uninsured populations in the United States.
Prereq: Graduate student status or senior status with minimum 2.8 GPA.

HUMAN, ENVIRONMENTAL AND CONSUMER RESOURCES

Elizabeth A. Rhodes
Department Head
108 Roosevelt Hall
487-1217

Ruby L. Meis
Coordinator of Advising
206 Roosevelt Hall
487-2490

Graduate curricula in the department are designed to provide a broad philosophy of the field with in-depth concentration in the subject matter content areas. The interpretation of current research and theory as they apply to the selected professional role is an integral part of each concentration. The professional concentration enhances the student's ability to utilize knowledge and interpersonal skills in contributing to the psychological, physiological, social, and economic development of individuals and families.

Concentrations are offered in clothing and textiles, consumer affairs, family and child development, foods and nutrition; also general home economics.

Program Objectives

The purpose is to:

1. provide a program of advanced study for certified teachers, other education personnel, dietitians, and those in consumer affairs, child and family services, and business careers such as clothing and textiles and foods;
2. provide the conceptual understandings, analytical and research skills necessary for those students who plan to proceed to more advanced study or to professional activities that require such knowledge and skills.

MASTER'S PROGRAM CONCENTRATION AREAS

A master's degree may be earned in any concentration area as specified below.

The student's program of study is planned with a graduate adviser in the Department of Human, Environmental and Consumer Resources.

1. Concentrations are available in clothing and textiles, consumer affairs, family and child development, foods and nutrition, and general home economics.
2. Minimum of 30 hours is required for the master's degree.
3. Minimum of 20 hours in a concentration area is required.

4. Minimum of two to 10 hours of cognate courses (outside departmental courses) is required.

General Home Economics

1. Minimum of 30 hours is required for the master's degree.
2. Minimum of 20 hours in home economics (four to six hours in five major areas of the department) is required.
3. Minimum of two hours of cognate courses outside the department is required (professional skills course).
4. Recommended for the applicant who has a major or minor in general home economics or home economics education, or can meet the prerequisite requirements of courses within the graduate program.

Admission Requirements

An applicant for admission must:

1. meet Graduate School degree admission requirements;
2. have completed the minimum number of hours or prerequisites for the general or concentration program.
3. have a 2.5 undergraduate grade point average;*
4. submit two letters of recommendation and evidence of competency in the program selected if required by the adviser;
5. receive the recommendation of the graduate adviser in the Department of Human, Environmental, and Consumer Resources.
6. International students must present a score of 80 on the Michigan English Language Assessment Battery (MELAB), or 530 on the Test of English as a Foreign Language (TOEFL).

*Applicants who do not meet the 2.5 undergraduate point average may request non-degree admission.

Facilities

The Department of Human, Environmental and Consumer Resources is located in Roosevelt Hall. Practicum experiences are included in many areas of graduate study with community and state agencies, businesses and hospitals. Cooperative education opportunities are available but credits for these experiences may not be counted as part of the 30 semester hour minimum.

COOPERATIVE PROGRAMS WITH EDUCATIONAL LEADERSHIP AT THE M.A. AND SP.A. LEVELS

The Department of Leadership and Counseling offers a cooperative program in vocational/technical administration. The program combines course work in school administration with courses in vocational/technical education (industrial education, business education, or home economics). This program is designed for persons seeking a career as either a director or supervisor of industrial vocational education. This program is available at either the master's or specialist's level. Interested persons should contact the department head in Leadership and Counseling.

GRADUATE COURSES

HEC 504 History of Textiles. Two sem hours
Study of textiles from ancient times to 20th century; fibers, fabric construction, dyes, finishes, design of textiles from various world regions; emphasis on the development of American textiles.

HEC 506 Social and Psychological Aspects of Housing. Two sem hours
(Formerly HEC 505)

Concerns for adequate family housing with an evaluation of physical, social and psychological aspects, including analysis of local, state, and federal legislation.
Prereq: HEC 269 Housing for Consumers.

HEC 507 Consumer and Economic Trends in Housing. Two sem hours
A survey of consumer and economic trends in housing. Attention given to housing alternatives, tenure practices, conservation issues, and related governmental policies.
Prereq: HEC 269 Housing for Consumers.

HEC 508 Foods in Cultures of the World. Two sem hours
(Formerly HEC 506)

An interdisciplinary approach to the study of cultures and food habits; the influence of attitudes and values in food selection.

HEC 509 Nutrition Problems of Low-Income Groups. Two sem hours
(Formerly HEC 508)

Social, cultural, and economic factors relative to dietary intakes of low-income families and groups. Survey of legislation and governmental food programs available to these groups.

HEC 510 Family Financial Management by Objectives. Three sem hours
(Formerly HEC 600)

Principles of family financial planning and relationship to economic conditions, social trends, and the needs of the family over the family life cycle.

HEC 511 Management for Special Needs Families. Two sem hours
(Formerly HEC 611)

Emphasis on helping families with special needs cope in contemporary society. Management techniques and support services available to help selected groups. Focus will vary according to semester offered: handicapped homemakers, displaced and single parent families, unemployed, and retired households.

HEC 519 Food Service Personnel Management. Two sem hours

Emphasis on skills and techniques used to manage foodservice personnel. Analysis of interpersonal relationships that impact employee motivation and morale, the emerging role of women in foodservice management and current developments in unionized foodservice operations.

Prereq: Introductory food service management course and basic management course.

HEC 520 Development of Educational Programs. Two sem hours

Organization, development, and assessment of educational programs in clothing, foods, housing, interiors, nutrition, and textiles in community settings (adult education, agencies, community colleges, governmental agencies and health care facilities) for identified audiences (preschool, adult, agency clients, health care patients, parents, community college students). Not open to students with credit in HEC 550 Consumer Education.

Prereq: Departmental permission.

HEC 521 Special Problems in Home Economics Education. Two sem hours
(Formerly HEC 518)

Course developed to assist the in-service teacher with specific problems in homemaking programs. Major concerns are the child with learning disabilities and special needs. Resources for teachers facing such problems in their responsibilities.

Prereq: HEC 370 Methods and Materials in Home Economics Education or equivalent.

HEC 531 Parent Education. Two sem hours
(Formerly HEC 504/603)

Study of parental roles and competence in family life; analysis of methods and techniques for providing education for parents.

HEC 532 Current Programs in Family Life Education. Two sem hours
(Formerly HEC 512)

Philosophy and objectives in family life education, teaching-learning procedures; sources for teaching materials, professional consultations, resource persons in family life education, and evaluation of sample materials.

Prereq: An undergraduate methods and materials course.

HEC 538 Nutrition Care Management. Two sem hours

Comprehensive examination of assessment/screening, planning, implementation, counseling, and monitoring techniques used in the nutrition care management process. Development of nutrition care plans for assigned case studies.

Prereq: HEC 402 Nutrient Metabolism, CHM 351 Introductory Biochemistry and ZOO 326 Human Physiology.

HEC 540 Family Financial Advising. Two sem hours
(Formerly HEC 631)

Financial and counseling strategies for working with families throughout the life cycle. Special emphasis on the psychological aspects of money management and working with over-indebted families.

Prereq: A course in family financial management.

HEC 548 Advanced Clinical Nutrition. Three sem hours

In-depth study of clinical nutrition in management of disease. Emphasis on pathophysiology, metabolic requirements, and dietary modifications.

Prereq: HEC 502 Nutrient Metabolism, CHM 351 Introductory Biochemistry, ZOO 325 Human Physiology.

HEC 550 Consumer Education. Two sem hours
(Formerly HEC 502)

Methods and materials used in effective teaching of consumer education concepts in school, community and business settings. Procedures, organization, and selection and evaluation of resources.

Prereq: A basic course in consumer affairs or departmental permission.

HEC 556 Problems in Interior Design. Two sem hours
(Formerly HEC 569)

Analyzing and solving the problems of interiors with regard to social, psychological, and economic concerns of families.

Prereq: Departmental permission.

HEC 587 Cooperative Education. Three sem hours

Provides practical experience in the student's concentration for four to six months of full-time employment with an individual employer. May not be used on 30

hour program plan for the master's degree. Offered on a credit/no credit basis.

Prereq: Departmental permission.

HEC 590, 591, 592 Special Topics. One, two and three sem hours

An experimental course designed to investigate specific topics of concern in the concentration areas of study within the department.

Prereq: Departmental permission.

HEC 601 Curriculum Development in Home Economics Education. Two sem hours
(Formerly HEC 511)

Contributions of home economics at secondary level, techniques employed in curriculum planning and reconstruction, clarification of student needs in terms of current social problems.

Prereq: HEC 370 Methods and Materials in Home Economics Education or equivalent.

HEC 602 The Disadvantaged Family. Two sem hours
(Formerly HEC 500)

Problems facing individuals in families that are socially, culturally, and economically disadvantaged. Survey of resources for effective local and federal programs of assistance in social service, education and legislation; resource speakers, and field trips.

HEC 608 Recent Development in Foods. Two sem hours
(Formerly HEC 580)

Survey of recent research in food science, including the production, preservation, processing, and distribution of food.

Prereq: HEC 211 Food Service or equivalent.

HEC 609 Recent Developments in Food Systems Management. Two sem hours
(Formerly HEC 581)

Evaluation of recent trends in food systems management, including food service systems, food and equipment innovations and personnel relationships.

Prereq: A course in food service/meal management or departmental permission.

HEC 612 Laws Affecting the Family. Two sem hours
(Formerly HEC 545)

Laws related to the family; their historical development and application to various stages of the family life cycle. Family law from the viewpoints of family members and professional persons who work with families, legal assistance available to families.

HEC 613 Child Guidance in the Family. Two sem hours
(Formerly HEC 541)

Consideration of theoretical approaches to child guidance applicable for home or school. Practical applica-

tion of child guidance principles at various developmental stages.

HEC 616 Consumer Problems in Home Furnishings. Two sem hours
(Formerly HEC 566)

Characteristics, cost construction and range in quality of furniture, tableware and accessories, wall coverings, rugs and carpets, flooring, woods, and fabrics; field trips. Purchasing problems are analyzed.

Prereq: HEC 208 Introduction to Interior Design or equivalent, HEC285 Resource Management: Individual and Family or equivalent.

HEC 618 Recent Developments in Nutrition. Two sem hours
(Formerly HEC 584)

Survey of recent research in nutrition including issues on determination of nutrient requirements, regulation of government nutrition policies and novel approaches for meeting nutrient needs.

Prereq: Six hours of credit in nutrition or departmental permission.

HEC 619 Recent Developments in Clinical Nutrition. Two sem hours

Application of the practice of providing nutritional care to the patient in need of aggressive nutritional support.

Prereq: HEC 538 Nutrition Care management and HEC 548 Advanced Clinical Nutrition.

HEC 620 Evaluation in Home Economics Education. Two sem hours
(Formerly HEC 611)

Experience in analyzing progress toward important objectives in home economics education. Development of classroom tests and evaluation materials. Evaluation instruments and statistical techniques useful in home economics.

Prereq: HEC 370 Methods and Materials in Home Economics Education or equivalent.

HEC 622 Family Development. Two sem hours
(Formerly HEC 540)

Family growth patterns through predictable stages of development, processes of interaction and cooperation, current research related to stages of development.

Prereq: HEC 209 Marriage and Interpersonal Competence.

HEC 623 Drug Abuse and Family Dynamics. Two sem hours
(Formerly HEC 510)

Consideration of remedial and preventative aspects of drug abuse (alcohol and other drugs) in families. The focus will be upon family dynamics relating to drug use with minor emphasis on the pharmacology of drugs.

HEC 625 The Fashion Field. Two sem hours
(Formerly HEC 568)

The nature of fashion, the psychology of fashion, general definitions and background, fashion movements, the fashion centers, fashion trends, and the major fashion designers.

HEC 630 Problems in Family and Consumer Economics. Two sem hours

Analysis of financial and economic resources, demands and source of help for varying stages in family life cycle, cultural groups, standards of living, and consumer economic problems.

Prereq: A course in family financial management.

HEC 632 The Man-Woman Relationship in Modern Society. Two sem hours
(Formerly HEC 501)

Consideration of the changes and dynamics of interaction stimulated by emerging shifts in roles of men and women; implications of these changes for the family and society; impact of multiple roles upon various men-women relationships.

HEC 633 Families in Crisis. Two sem hours
(Formerly HEC 542)

Social, psychological, and interpersonal aspects of crisis situations in families; educational and therapeutic resources available to families in crisis.

HEC 634 Consumer Problems in Clothing and Textiles. Two sem hours
(Formerly HEC 561)

Investigation of the sociological, psychological, and economic facts involved in the selection and use of textiles and clothing.

Prereq: HEC 235 Textiles for Consumers, HEC 302 Fashion Manufacturing Techniques or departmental permission.

HEC 635 History of Costume. Two sem hours
(Formerly HEC 562)

The costume from ancient times to present day; major characteristics; social, economic, and aesthetic influences; recurring styles; influence on present fashion.

Prereq: A course in history.

HEC 636 Recent Developments in Home Equipment and Technology. Two sem hours
(Formerly HEC 531/636)

Innovation in household equipment, including home computers. Emphasis on new technology, products, testing methods, consumer protection, government regulations, and trends affecting home equipment.

HEC 640 Values and Valuing in Family Systems. Two sem hours
(Formerly HEC 529)

Study of sources, characteristics, and development of societal and personal values; impact of values and valuing on family management and decision making.

Prereq: HEC 510 Family Financial Management by Objectives.

HEC 642 Family in the Middle and Later Years. Two sem hours
(Formerly HEC 544)

Individual, family, and community planning for the later years of life; developing potentialities; maintaining health; providing reasonable security; building interpersonal relationships. Lectures, field trips, and demonstrations.

Prereq: HEC 622 Family Development.

HEC 644 Recent Developments in Textiles. Two sem hours
(Formerly HEC 660)

The nature of textile fibers; economic, chemical, and physical problems related to their manufacture and use; technological advances to overcome these problems.

Prereq: HEC 235 Textiles for Consumers.

HEC 645 Clothing Design and Construction. Two sem hours
(Formerly HEC 565)

Principles of flat pattern design, with application to a variety of styles and fabrics. Special problems in fitting, adaptations of design, and processes of construction.

Prereq: HEC 235 Textiles for Consumers, HEC 302 Fashion Manufacturing Techniques, or departmental permission.

HEC 647 History of Furniture and Contemporary Trends. Two sem hours
(Formerly HEC 563)

A study of furniture of various periods of history and the relationships to contemporary styles.

HEC 648 American Interiors. Two sem hours

An investigation of the relationships between the various components of interior enhancement and indigenous arts and crafts to the major developments in American domestic architecture, A.D. 1500 to 1900.

HEC 649 International Nutrition. Two sem hours
(Formerly HEC 585)

Study of world nutrition problems and possible solutions for meeting food crises on a world-wide basis.

Prereq: Six hours of credit in foods and nutrition or departmental permission.

HEC 650 Approaches to Marriage and Family Problems. Two sem hours
(Formerly HEC 650 Marriage and Family Counseling)

Exploration of the interrelationships between marital counseling and the concepts of marital interaction and development. Comparison of the role of the marriage counselor and the family life educator in assisting families to cope with problems that arise throughout the family life cycle. This course does not provide training in counselor skills but does study the application of marital and family therapy to common problems experienced by married couples.

Prereq: A course in personality development or family interaction or departmental permission.

HEC 660 Consumer Behavior and Decision-Making in the Family. Two sem hours
(Formerly HEC 660)

Study of decision-making theory and its application to family and consumer behavior.

HEC 667 Fabric Design for the Home. Two sem hours
(Formerly HEC 564)

Advanced work in experimental design with fabrics, with emphasis on use in the home.

Prereq: Departmental permission.

HEC 668 Proteins, Lipids and Carbohydrates. Two sem hours

Investigation of the macronutrients and their properties, functions and appropriate contribution to energy and growth requirements in health and disease.

Prereq: HEC 402 Nutrient Metabolism or equivalent.

HEC 669 Vitamins and Minerals. Two sem hours
(Formerly HEC 583)

Emphasis on interrelationships of minerals and vitamins in human metabolism.

Prereq: HEC 402 Nutrient Metabolism; physiology recommended.

HEC 675 Textile Analysis. Two sem hours
(Formerly HEC 661)

The chemical and physical analysis of fibers, yarns, fabrics, and finishes; equipment and techniques used; interpretation of data; presentation of findings to the consumer; textile standards; current textile literature.

Prereq: HEC 644 Recent Developments in Textiles or departmental permission.

HEC 678 Research Methods and Design. Three sem hours
(Formerly HEC 677)

Introduction to research methods and design, including evaluation of research, sampling techniques, basic statistical concepts, analysis of data, and computer use. Course is required for department majors.

Prereq: Must be on a planned master's program. Should be taken early in graduate study.

HEC 680 Special Topics. Two sem hours
(Formerly HEC 539)

An experimental course designed to investigate specific topics of concern in the specialization areas of study in home economics.

Prereq: Departmental permission.

HEC 683 Workshops in Selected Areas. Two sem hours
(Formerly HEC 595)

Prereq: Departmental permission.

HEC 686, 687, 688, 689 Practicum. One, two, three and four sem hours

Supervised field experience under the direction of a departmental adviser.

Prereq: Departmental permission.

HEC 690, 691, 692 Thesis. One, two and three sem hours

Completion of research problems and writing of a thesis under the direction of a departmental adviser and committee. A minimum of six semester hours in thesis credit must be earned.

Prereq: Departmental permission.

HEC 694 Seminar in Home Economics. Two sem hours
(Formerly HEC 596)

Consideration and investigation of special problems in the specialization areas of study in home economics.

Prereq: Departmental permission.

HEC 697, 698, 699 Independent Study in Home Economics. One, two and three sem hours
(Formerly HEC 597, 598, 599)

An intensive study of a selected professional problem under the direction of a faculty adviser.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses also may be taken for graduate credit and applied on the department's degree program. *A maximum of nine hours of undergraduate course work is permitted in the earning of any graduate program.* See the undergraduate catalog for course descriptions.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

- HEC 402 Nutrient Metabolism (3)
- HEC 407 Administration and Supervision in Child Development Centers (3)
- HEC 412 Nutrition of the Life Cycle (3)
- HEC 416 Contemporary Issues in Nutrition (3)
- HEC 419 Consumer Resource Management: Health Care (3)
- HEC 422 Seminar in Child Development (2)
- HEC 440 Financial Issues in the Hospitality Industry (3)
- HEC 441 Purchasing in the Hospitality Industry (3)
- HEC 450 Adult Role Transition (3)
- HEC 460 Tailoring (3)
- HEC 461 Family Interaction (3)
- HEC 472 Consumer Economic Issues (3)
- HEC 473 Consumer Economic Problems (3)
- HEC 474 Seminar in Consumer Affairs (2)

SOCIAL WORK

Donald M. Lopnow
 Department Head
 411 King Hall
 487-0393

The Social Work Department does not currently offer a masters in social work (MSW). It may offer such a program once approval is obtained from the appropriate accrediting agencies. Applications and enrollment are premature prior to fall 1992, if at all. It is not possible, at the present time, to enroll in courses that may be applicable to a future MSW program. Consult the Social Work Department for further information.

The department does offer a social work certificate and is responsible for administering the multidisciplinary graduate certificate in gerontology.

Social Work Certificate
 (Family and Children's Services Programs)
Donald M. Lopnow
 Adviser
 411 King Hall
 487-0393

The Family and Children's Services Program (FCSP) offers specialized preparation for social work careers in services to families and children. The program consists of a series of elective courses all of which focus on providing social work services to families and children. At the graduate level, the program is intended to be an educational resource available on a continuing education basis for agency staff who wish to enhance their knowledge and skills in social work with families and children. With the approval of their departmental graduate adviser or the social work adviser, graduate students may complete the program.

In order to be certified as having completed the FCSP, the student/practitioner must complete SWK 418 Policies and Issues in Services to Families and select any three additional courses from the following which are a part of the program.

- SWK 419 Family-Centered Practice
- SWK 420 Working with Aging People
- SWK 422 Specialized Services for Families with Children in Placement
- SWK 424 Social Work with Physically and Mentally Handicapped
- SWK 431 Substance Abuse
- SWK 435 Group Work with Children and Families
- SWK 460 The Law and Social Work with the Family
- SWK 465 Social Work, Sex and the Family
- SWK 470 Supervising Staff and Volunteers

The process of selecting the courses most sensible for a particular person should be accomplished in consultation with the student's graduate adviser/social work adviser. These elective courses are not offered each semester and **prior consultation** with a social work adviser is desirable. Upon completion of the four courses with a least a 3.3 grade point average for graduate students, the student is awarded a certificate recognizing completion of the FCSP. Students may enroll in the courses for undergraduate or graduate credit; course expectations are adjusted accordingly.

OTHER COURSES

A maximum of nine hours of undergraduate course work is permitted in the earning of any graduate degree. The following undergraduate courses may be taken for graduate credit.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise you will receive undergraduate credit.

- | | |
|------------|-------------------------------------|
| GRT 488-89 | Gerontology Practicum/Seminar (2-3) |
| SWK 463 | Social Work with Legal Offenders |

Certificate in Gerontology
Elizabeth Oates Schuster
 Coordinator/Adviser
 416 King Hall
 487-0393

Graduate Certificate in Gerontology Description

The Gerontology Program, located within the College of Health and Human Services, is administered by the Department of Social Work through an Interdisciplinary Coordinating Committee composed of faculty from at least twelve departments and programs throughout the University. The program offers an 18-hour multidisciplinary graduate certificate. It is intended for students who have a bachelor's degree from an accredited institution of higher education, and have an interest in specialized study in aging but do not wish to pursue a program as extensive as a master's degree. The program is targeted to those working in the field of aging who would like to gain formal educational experiences in gerontology and to persons considering a career change. The certificate also is intended for students interested in increasing their understanding of the aging process in order to enhance their own aging experience.

The certificate in gerontology is unusual in that it does not require the student to enroll in a graduate degree program. The certificate may be used, however, as a cognate or concentration to other graduate programs including clinical behavioral psychology, public administration, occupational therapy, leadership and counseling, sociology, the masters of liberal studies in technology, and the master's degree in individualized studies.

To accommodate busy lifestyles, most of the courses are offered in the evenings or on weekends. The program must be completed within three years. It is possible, however, to complete all of the requirements within one and a half years.

ADMISSION REQUIREMENTS

1. A baccalaureate degree from an accredited institution with a minimum 2.5 GPA
2. Acceptance into The Graduate School
3. An interview with the gerontology program coordinator. Students must be admitted to the graduate certificate program before enrolling in required course work.

GRADUATE CERTIFICATE REQUIREMENTS

1. The program shall consist of at least 15 graduate-level credit hours.
2. Not more than one 400-level course may be used on the graduate certificate program.
3. A minimum grade point average of 3.0 ("B") must be achieved to obtain the certificate.
4. Credits earned for the graduate certificate may apply, subject to applicability, to a graduate degree.
5. All requirements for the certificate must be completed within three years from the time of first enrollment.

Basic Courses9 hours

GRT 512 Applied Psychosocial Aspects of Aging (3)

Choose one:

BIO 511 Biological Aspects of Aging (2)

or

NUR 596 Chronic Illness and Aging (2)

SWK 552 Policy Issues and Older People (2)

SWK 553 Ethnicity and Gender Issues Among the Aged (2)

Gerontology Practicum2-3 hours

GRT 688

-689 Gerontology Practicum/Seminar (2-3)

Elective Courses6-7 hours

GRT 411 Issues in Caring for People with Alzheimer's and Related Illnesses (3)*

GRT 417 Work and Retirement (2)*

GRT 514 Caregiving and the Elderly (2)

GRT 516 The Elderly and the Law (3)

GRT 590

-592 Gerontology Special Topics (1-3)

GRT 697

-699 Gerontology Independent Studies (1-3)

G&C 573 Counseling the Older Person (2)

HEC 642 Family in the Middle and Later Years (2)

PSY 551 Psychology of Death and Dying (2)

SWK 413 Women and Aging (3)*

Additional applicable courses may be used in the elective area with prior approval of the coordinator of the program.

Total Number of Credit Hours 18

* The student is allowed to take one approved 400-level course toward the certificate if it is taken for graduate credit. The student must receive permission from the graduate school before registering for this class. Any 400-level course taken prior to enrolling into the program may not be applied toward the certificate. See undergraduate catalog for course descriptions.

Approved 400-Level Courses

GRT 411 Issues in Caring for People with Alzheimer's and Related Illnesses (3)

GRT 417 Work and Retirement (2)

SWK 413 Women and Aging (3)

GRT 512 Applied Psychosocial Aspects of Aging. Three sem hours

An interdisciplinary overview of the gerontological aspects including psychological, social/psychological, sociological, and political and economic issues. Application will be made in such areas as leisure, education, housing, and intergenerational issues.

Prereq: Senior undergraduates, graduate level.

GRT 514 Caregiving and the Elderly. Two sem hours

This course introduces issues affecting families who care for frail or dependent older relatives. Students learn practical interventions with families and examine policies that impact on them.

GRT 516 The Elderly and the Law. Three sem hours

This course discusses the legal issues and implications surrounding health care, long term care, public entitlement programs, termination of life support, guardianship and alternatives, age discrimination, and intergenerational family issues. Emphasis is on Michigan law and situational analysis and problem solving.

GRT 590, 591, 592 Special Topics in Gerontology. One, two and three sem hours

Content will change from semester to semester. An experimental course for subject matter not yet provided in other program offerings. Students may elect this course more than once as long as different topics are covered.

GRT 688, 689 Gerontology

Practicum. Two and three sem hours
Integration and synthesization of knowledge and skills gained from other gerontology courses and life experiences. Also, the humanities perspective in regard to gerontology and career opportunities, including visits to potential places of employment. Students who have not completed a field placement in a gerontology service setting will be required to complete a field placement.
Prereq: Graduate standing and final semester of study.

GRT 697, 698, 699 Gerontology Independent

Study. One, two and three sem hours
This course will provide the opportunity for the selection and the completion of an individual study under the direction of University faculty members.

NUR 596 Chronic Illness and Aging. Two sem hours
Introduction to common chronic disease entities which may occur in the elderly person. Problems related to "who are the caregivers," the "healthy" state or quality of life, multiple therapeutic drug usage, and issues of compliance and control will be discussed. Seminar method will be used.

Prereq: Senior or graduate standing.

**SWK 552 Policy Issues and
Older People.**

Two sem hours
A review and analysis of policies and legislation which impact on older people. Programs integral to the service delivery system for older people will be examined critically.
Prereq: SWK 502 or admission to the gerontology graduate certificate program.

**SWK 553 Ethnicity and Gender
Issues Among the Aged.**

Two sem hours
This course will examine program and services research pertaining to gender and minority group differences in the aging process and the implications for social work and other professional practice. The effects of values and attitudes on minorities and men and women will be closely examined. Intervention techniques will be analyzed and discussed.
Prereq: Admission to the gerontology graduate certificate program.

COLLEGE OF TECHNOLOGY

DEAN: Alvin E. Rudisill
150 Sill Hall
487-0354/Fax: 487-8755

DEPARTMENTS

Business and Industrial Education
Industrial Technology
Interdisciplinary Technology

The College of Technology offers four master's degree programs with differing philosophies and objectives. The master of business education is designed to meet the needs in business teacher education. It is planned to qualify students for careers in the field of business education in secondary schools and community colleges. The master of arts in industrial education is planned to qualify students for careers in industrial/vocational and technology education. The master of science degree is offered with a major in industrial technology and polymer technology. The major in industrial technology is available with concentrations in construction, manufacturing, or quality. The polymer technology major prepares students for careers in either polymer research and development or in polymer manufacturing. The Department of Industrial Technology also offers a graduate certificate in quality technology.

The College of Technology also offers a master of liberal studies degree with a concentration in technology. The M.L.S. in technology focuses on the technical as well as socio-cultural aspects of technology in its past, present, and future dimensions.

BUSINESS AND INDUSTRIAL EDUCATION

H. James Rokusek
Department Head
14 Sill Hall
487-4330/Fax: 487-8755

Ann Remp
Coordinator of Advising
Master of Business Education
17 Sill Hall
487-4330/Fax: 487-8755

James L. Barnes
Coordinator of Advising
Master of Arts in Industrial Education
20 Sill Hall
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The Department of Business and Industrial Education offers programs leading to the master of business education and the master of arts in industrial education.

MASTER OF BUSINESS EDUCATION

This graduate program recognizes the need for broadly educated business teachers. It is planned to qualify students for careers in the field of business education in secondary schools and community colleges. Special opportunity is provided for students wishing to complete academic study required for vocational certification in distributive and office education. Candidates completing the degree must be certified to teach business education in the secondary schools of Michigan or have two years of successful, full-time teaching in a community college or business college.

M.B.E. Program Admission

Minimum standards for admission to the M.B.E. program will include a 2.5 undergraduate grade point average and either a valid teaching certificate or two years of successful post-secondary teaching experience.

For information about current M.B.E. admission policies and criteria, please contact the coordinator of graduate advising in the Department of Business and Industrial Education.

Conditional Admission

Graduate students who do not hold a valid teaching certificate, do not meet the post-secondary requirement, or have not completed all foundation courses may be admitted conditionally. Conditionally admitted students must complete a certification program in addition to their master's degree program.

Non-Degree Admission Status

Students with a Millers Analogies Test (MAT) of 37 but whose undergraduate grade point average is between 2.25 and 2.49 may qualify for non-degree admission status 1: academic deficiencies. (See Non-Degree Admission Status, page 19.)

Non-degree admitted students must maintain a "B" (3.0) average in foundation courses and a "B+" average, with no grade below "B" and no repeats, in 12 hours of adviser-approved M.B.E. program courses. Non-degree admitted students must have an appropriate adviser's written permission to enroll in M.B.E. program courses and will not be permitted to enroll in more than 12 hours as a non-degree student. Students who successfully meet these requirements will be granted regular admission.

Foundation Courses

<i>Foundation</i>	<i>Undergraduate Equivalent</i>
MTH 118	Mathematical Analysis for Social Sciences I (3)
ECO 501	Macroeconomic Theory and Policy (3)
ACC 501	Accounting Principles (3)
MGT 501	Management: Concepts, Principles and Practice (3)
MKT 510	Marketing (3)
LAW 503	Legal Environment of Business (3)
ORI 501	Business Information Systems (3)

M.B.E. Program Requirements

Upon completion of required foundation courses, the candidate and the graduate adviser will jointly agree upon a program leading to the degree. Such a program includes minimum and maximum limits of graduate courses in cognates and in a business education concentration.

	Min.	Max.
Cognates selected from among offerings in:		
Arts and Sciences	6	18
Business Administration, Economics, Technology, and General Education	12	24

Business Education Concentration Required Courses (10 hours)

BE 569 Foundations of Business Education (2)
BE 611 Curriculum Models in Business Education (3)
BE 678 Research in Business Education (3)

One course in Advanced Methods
BE 694 Professional Seminar (2) or
BE 691 Master's Thesis (2)

MASTER OF ARTS IN INDUSTRIAL EDUCATION

The program leading to a master of arts degree in industrial education provides advanced preparation in professional, technical, and related fields as a foundation for career advancement and personal upgrading. The curriculum consists of regular class work, field experiences in industry and education, research activities, technical laboratory work, and cognate courses. As a result of this advanced preparation, industrial and technology educators should develop an understanding of the philosophical, social, psychological, and economic foundations as a basis for developing and implementing industrial education programs.

The student's program of study is planned with a graduate adviser in industrial education. Each graduate program is customized to meet the needs, interests and abilities of the individual student.

NOTE: *Students who register for classes in the Department of Business and Industrial Education must have a departmental graduate adviser's signature.*

Objectives of the Program

The program in industrial education is designed to:

1. provide advanced preparation in professional, technology, and cognate areas;
2. develop an awareness and understanding of the philosophical, social, and economic foundations as bases for industrial and technology education programs;
3. produce professional personnel who will have the appropriate knowledge and competencies to promote and develop comprehensive and viable industrial and technology education programs;
4. provide considerable flexibility in the selection of courses to meet the needs of each student;
5. enable a student to acquire a broad knowledge of the literature in industrial education; and
6. provide a strong foundation for professional advancement and personal upgrading.

Requirements for Admission

An applicant for admission must:

1. meet Graduate School degree admission requirements;
2. hold a valid teaching authorization or certificate. The teaching certificate requirement will be waived for all currently employed community college faculty;
3. have completed a minimum of 30 semester hours in industrial technology and industrial technology/arts education or industrial-vocational education courses;
4. have a 2.5 undergraduate grade point average or 2.75 in last half of the bachelor's program;
5. receive the recommendation of the Graduate Committee in the Department of Business and Industrial Education.

Requirements for Completion of the Program

An applicant for the master's degree must:

1. have earned a minimum of 30 semester hours of graduate credit applicable to the program;
2. have earned a minimum of 20 semester hours of 3.0 ("B") average grade in the major;
3. have earned a minimum of 20 semester hours of course work in selected areas of industrial education, including eight hours in the required core:
 - IE 551 Philosophy of Industrial Education
 - IE 562 Curriculum in Industrial Education
 - IE 661 Evaluation in Industrial Education
 - IE 677 Research in Industrial Education
 Included in the 20 semester hours are two hours in IE 694 Seminar in Industrial Education or six hours in IE 690, 691, or 692 Thesis; or six hours of professional elective courses: Two hours of a special topics course, and two hours of applicable electives.
4. have completed the requirements for one of the following concentrations:
 - Technology Education (24)
 - Industrial-Vocational Education (24)
5. hold a 3.0 ("B") grade point average for all graduate credit applicable to the master's degree program;
6. have earned a minimum of six semester hours in cognate courses;
7. receive the recommendation of the student's adviser, the Graduate Committee in the Department of Business and Industrial Education and The Graduate School of the University.

Cooperative Programs with Educational Leadership at the M.A. and Sp.A. Levels

The Department of Leadership and Counseling offers a cooperative program of vocational/technical administration. The program combines course work in vocational/technical education, (industrial education, business education, or home economics). This program is designed for persons seeking a career as either a director or supervisor of vocational education and is available at either the master's or specialist's level. Interested persons should contact the department head in Leadership and Counseling.

BUSINESS EDUCATION COURSES

BE 524 Microcomputers in Business

Education. Two sem hours

Hands-on experience using software with applications for classroom management (such as grade records and test banks) and classroom instruction (such as simulation).

Prereq: Graduate standing; senior standing (2.5 grade point average) with permission of department and Graduate School.

BE 568 Coordination of Cooperative Education

Programs. Two sem hours

Analyzes the duties and responsibilities of the cooperative education coordinator. Focus on human public relations, related instruction, and program development. Required of all potential coordinators. Recommended for school administrators and vocational teacher education students.

BE 569 Foundations of Business

Education. Two sem hours

Principles and developments in business education for school administrators and business teachers. The objectives and curricular patterns in business for different types of educational institutions, professional leadership, and current research in the field.

BE 587 Cooperative Education in Business

Education. Three sem hours

A cooperative education experience integrating classroom theory with a paid work experience in an area related to the student's field of study. Work sites must be approved by the coordinator of Cooperative Education and the Department of Business and Industrial Education. Additional assignments may be required. *Credit/no credit.*

Prereq: Departmental permission.

BE 611 Curriculum Models in Business

Education. Three sem hours

Objectives, levels, and patterns of business education programs will be studied and comparisons made with recent research.

BE 615 Information Processing.

Two sem hours

Centers on office functions and the role of information processing, information processing concepts and careers, information processing skills (basic and advanced), and alternatives for information processing education.

Prereq: Graduate standing or departmental permission.

BE 626 Administrative Practices in the

Contemporary Office. Three sem hours

Contemporary office administration practices are studied and related competencies developed. Specific ac-

tivities in office management are dealt with, technical work tasks and personnel responsibilities are applied to various office situations.

BE 651 Administration of Vocational-Technical

Education. Two sem hours

(Formerly BE 672 Administration of Business

Education)

Focuses on the legislation, programs, planning, and regulations that are unique to vocational education and the administrative functions which are directly related. Recommended for school administrators and vocational teacher education students.

BE 661 Evaluation in Business and Industrial

Education. Two sem hours

Principles and methods of student and program evaluation, standards as they related to evaluation, and instructional effectiveness, program evaluation, and the application of standards in secondary and post-secondary education.

BE 675 Office Education Block.

Three sem hours

(Formerly BED 580)

Study of philosophy, planning, and evaluation procedures for office education block programs. Prepare instructional materials for block programs.

BE 678 Research in Business Education:

Analysis and Application. Three sem hours

A review of basic research techniques applied to business education, including office and marketing education areas. Studies completed in business education are analyzed in light of research processes and conclusions. Students become involved in the design and application of research methodology to projects appropriate to business education classes.

BE 679 Special Topics in Business

Education. One sem hour

Provides for intensive study of selected topics drawn from current developments in the total field of business education.

Prereq: Admission to graduate study.

BE 680 Special Topics in Business

Education. Two sem hours

Provides for intensive study of selected topics drawn from current developments in the total field of business education.

Examples of topics:

Career education

Consumer education

Economic education

BE 681 Special Topics in Business Education. Three sem hours
(Formerly BED 540)

Provides for intensive study of selected topics drawn from current developments in the total field of business education.

Examples of topics:

- Competency-based education
- Operation of school stores
- Youth groups in vocational education
- Meeting needs of slow learners

BE 683 Workshop in Business Education. Two sem hours
(Formerly BED 595)

Modern methods, procedures, and materials for improving the effectiveness of the classroom teacher in the areas of shorthand, typewriting, bookkeeping, and basic business.

BE 690, 691, 692 Thesis. One, two or three sem hours
Intensive research into a problem in business or marketing education under the direct supervision of a graduate faculty member. *Credit/no credit.*
Prereq: Departmental permission

BE 694 Business Education Professional Seminar. Two sem hours

This course provides a culminating experience for students completing the master's degree in business education. It will include discussion and experiential activities that encourage students to apply academic achievements to functional professional situations.

Prereq: Must have completed 24 hours on M.B.E. degree program.

BE 697, 699 Independent Study. One and three sem hours
(Formerly BED 597, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

INDUSTRIAL EDUCATION COURSES

IE 500 Crafts. Two sem hours
Basic craft ideas of wood, metal, graphics, plastics, leather, and ceramics are explored. Additional elective areas also are available. *Not open to departmental majors.*

IE 501 Crafts for Special Education. Two sem hours
The development of craft activities to supplement the curriculum, provide therapeutic manipulative experiences and leisure activities in the special education classroom. Emphasis is given to the identification of industrial employment opportunities. *Not open to departmental majors.*

IE 502 Career Education for the Elementary Child. Two sem hours

A study of the concepts and methods used to develop an awareness of the careers of society with elementary school children. Emphasis is on individual and group activities relevant to integrated curriculum studies. Also open to departmental majors.

IE 504 Career Exploration and Preparation. Two sem hours

Practical applications of experience-based career education will be examined as related to secondary school industrial education. Field visitations and public school resource personnel will illustrate to the experienced teacher practical applications of the exploratory and preparatory concepts of career education. Also open to departmental majors.

IE 524 Computer Applications for Vocational-Technical Instruction. Two sem hours

Description and illustration of computer hardware and software for vocational-technical education. Mainframe and microcomputer systems will be reviewed. Opportunity to prepare and develop computer instructional materials for the microcomputer.

Prereq: Industrial education majors or minors or departmental permission.

IE 525 Robotics Applications in Industrial Education. Two sem hours

An overview of the history, principles of operation, manufacture, and use of robots and robotic systems. Emphasis provided to the analysis of these topics for programs of study in technology and industrial-vocational education.

Prereq: Industrial education majors or minors or departmental permission.

IE 530 Teachers Exploring Technology. One sem hour

The applications of technology in business, industrial, and service institutions will be viewed through a series of field visitations. Implications for educational programs that prepare employees for those institutions will be defined.

Prereq: Industrial education major or minor or departmental permission.

IE 550 Development of Industrial Education. Two sem hours

The historical development of industrial education programs; the influence of industrial, technological, and societal change; institutions, professional associations, movements, and leaders in the field.

IE 551 Philosophy of Industrial Education.**Two sem hours**

Philosophical viewpoints concerning technology education and industrial-vocational education; historical development and philosophical justification of modern programs.

IE 562 Curriculum Development in Industrial Education.**Two sem hours**

Development and current status of curriculum in technology and industrial-vocational education, principles and procedures for curriculum development, criteria for content selection, contemporary curriculum patterns, and factors involved in curriculum change.

IE 568 Coordination of Cooperative Education Programs.**Two sem hours**

Analyzes the duties and responsibilities of the cooperative education coordinator. Focuses on human and public relations, laws and regulations, student placement, related instruction, and program development. *Required of all potential coordinators. Recommended for school administrators and vocational teacher education students.*

IE 587 Cooperative Education in Industrial Education.**Three sem hours**

A cooperative education experience integrating classroom theory with a paid work experience in an area related to the student's field of study. Work-sites must be approved by the coordinator of Cooperative Education and the Department of Business and Industrial Education. Additional assignments may be required. *Credit/no credit.*

Prereq: Departmental permission.

IE 590, 591, 592 Special Topics.**One, two and three sem hours****(Formerly IED 539)****IE 594, 595, 596, 597 Workshops in Selected Areas.****One, two, three and four sem hours****(Formerly IED 539)****IE 650 Industrial Education in Colleges and Universities.****Two sem hours**

The philosophy, history, and development of industrial teacher education programs; current trends in selected institutions.

IE 651 Administration of Vocational-Technical Education.**Two sem hours**

Focuses on the legislation, programs, planning, and regulations that are unique to vocational education and the administrative functions that are directly related. *Recommended for school administrators and vocational teacher education students.*

IE 652 Technical Programs in Community Colleges.**Two sem hours**

Nature, scope and functions of vocational and technical programs in community colleges; recent developments.

IE 655 Supervision of Industrial Education.**Two sem hours****(Formerly IED 680)**

Principles and problems involved in the improvement of instruction in industrial education. *Open to majors in industrial education and to majors in administration.*

IE 661 Evaluation in Business and Industrial Education.**Two sem hours****(Formerly Evaluation in Industrial Education)**

Principles and methods of student and program evaluation. Standards as they relate to evaluation and instructional effectiveness. Program evaluation and the application of standards in secondary and post-secondary education.

IE 663 Instructional Media in Industrial Education.**Two sem hours**

Recent developments in instructional media and technology, the relationship of media to the psychology of learning, implications for programs of industrial education.

IE 664 Laboratory Planning.**Two sem hours****(Formerly IED 670)**

Analysis of space and equipment requirements of technology and industrial-vocational education laboratories. Consideration of specific functions, safety, efficiency, location, and design as they relate to educational philosophy and objectives.

IE 677 Research in Industrial Education.**Two sem hours****(Formerly IED 592)**

Basic research types, methods, and procedures; extent and sources of studies; the development of investigations; consumption of reported studies and the role played in the improvement of technology education; and industrial-vocational programs.

IE 679, 680, 681 Special Topics.**One, two and three sem hours****IE 682, 683, 684, 685 Workshops in Selected Areas.****One, two, three and four sem hours****IE 686 Practicum in Industrial Education.****Two sem hours**

An examination and evaluation of a variety of instructional methods. Direct experiences are provided in developing and utilizing instructional materials.

IE 688 Internship in Industrial Education.**Two sem hours**

A supervised experience in education. Opportunities are provided for directing a variety of teaching-learning experiences contracted with a University faculty member. *Credit/no credit.*

IE 690, 691, 692 Thesis. One, two, three sem hours

A research-based study conducted under the supervision of a University graduate faculty member and departmental graduate committee, under the guidelines described in the *EMU Industrial Education Thesis Manual*. *Credit/no credit.*

Prereq: Departmental Permission, 3.5 GPA

IE 693, 694, 695, 696 Seminar in Industrial**Education. One, two, three and four sem hours (Formerly IED 596)**

A discussion of problems and issues in technology education and industrial-vocational education with emphasis on literature review and appraisal. *To be taken during last semester before graduation.*

Prereq: Topics must be approved by the department during the semester prior to the study.

IE 697, 698, 699 Independent**Study. One, two and three sem hours**

Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" (technical study without the prerequisite of IE 677) and "Research Proposal Format" guideline sheets are available from the department.

Prereq: Departmental permission. Topics must be approved by the department during the semester prior to the study.

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
BE 568				X
BE 569	X			
BE 611		X		
BE 651	X			
BE 661	X			
BE 675				X
BE 678				X
BE 681			X	
BE 683			X	
BE 694	X	X	X	X
IE 500		X		X
IE 501	X	X		
IE 502		X		
IE 504			X	
IE 551				X
IE 562				X
IE 568				X
IE 650	X			
IE 651	X			
IE 652			X	
IE 661	X			
IE 663		X		
IE 664		X		
IE 677	X			
IE 690	X	X	X	X
IE 691	X	X	X	X
IE 692	X	X	X	X
IE 694	X	X	X	X

INDUSTRIAL TECHNOLOGY

Everett N. Israel
Department Head
118 Sill Hall
487-2040

John A. Weeks
Coordinator of Advising
118 Sill Hall
487-2040

Graduate Faculty Advisers:
Construction concentration: John Weeks
Manufacturing concentration: Erik Lokensgard,
Thomas Soyster, and Walter Tucker
Quality concentration: Thomas Soyster and
Daniel Fields
Graduate certificate in quality technology:
Daniel Fields

MASTER OF SCIENCE IN INDUSTRIAL TECHNOLOGY

The master of science in industrial technology (MSIT) is a program designed to extend the undergraduate degree in industrial technology or develop new career options for other majors. The program is intended to increase the student's understanding of industrial processes, production techniques, design functions, and research and management methods.

The program is designed for managers, production supervisors, and other related industrial personnel. It also is planned for upgrading individuals or providing advancement opportunities for employees already established with a company.

Objectives of the Program

The industrial technology program is designed to:

1. develop advanced competencies associated with technical, supervisory, and related positions in industry;
2. broaden the career potential of individuals through experiences in construction, manufacturing, or quality;
3. provide advanced preparation in construction, manufacturing, or quality in relating the technical and human components of industry; and
4. develop a broad perspective needed for those employed in or aspiring to mid-management industrial positions.

Requirements for Admission

All applicants for admission must:

1. meet degree admission requirements of The Graduate School;

2. possess a minimum undergraduate grade point average of 2.50; and
3. possess a baccalaureate degree in industrial technology, engineering technology, related fields of engineering, or become admitted under a conditional provision.
4. Conditional students may be required to complete undergraduate course work in construction, manufacturing, or quality to meet prerequisite requirements.

NOTE:

5. International students must score at least 550 on the TOEFL or 85 on the MELAB before starting the graduate degree program;
6. a student may not earn two graduate degrees in the Department of Industrial Technology.

Requirements for Completing the Program

An applicant for the master's degree must:

1. complete all conditional requirements before starting the degree program;
2. have earned a minimum of 30 semester hours of graduate credit applicable to the program;
3. have earned a minimum of 16 semester hours with a 3.0 GPA ("B") in Industrial Technology Departmental courses;
4. have earned a 3.0 GPA ("B") to qualify for graduation;
5. have completed all of the requirements for a program concentration in either construction, manufacturing, or quality;
6. have completed a thesis/development option if elected as a part of the graduate program; and
7. have received the recommendation of the program adviser and The Graduate School.

Construction Concentration Requirements:

1. Develop a 30-semester-hour approved program with assistance from a graduate adviser;
2. complete all University Graduate School requirements;
3. earn 30 semester hours in 500- and 600-level courses; or
4. if admitted conditionally, complete all of the required conditional undergraduate courses totaling not more than 24 semester hours.

Construction Program—30 hours

Industrial Core (four hours required)

- IT 645 Occupational Safety and Health (2)
IT 648 Principles of Construction Technology (2)

Construction Core (14-18 hours required)

- IT 501 Project Estimating (2)
IT 502 Project Scheduling (2)
IT 503 Construction Delays and Claims (2)
IT 504 Project Management (2)
IT 591 Special Topics (2)
IT 616 Analysis of Commercial Structures (3)
IT 624 Project Productivity and Cost Control (3)

IT 626	Construction Processes (2)
IT 689	Industrial Internship (2)
IT 692	Degree Option: Development Project (3)
IT 698, 699	Independent Study (2, 3)
<i>Business Core (nine-12 hours required)</i>	
ACC 501	Accounting Principles (3)
FIN 502	Financial Principles (3)
INS 586	Risk and Risk Management (3)
MGT 501	Management Concepts, Principles and Practices (3)
MGT 568	Administrative Communication Theory (3)
MGT 576	Corporate Social Policy (3)
MGT 580	Management of Organizational Behavior (3)
LAW 503	Legal Environment of Business (3)
LAW 530	Modern Commercial Law (3)
ORI 502	Business Information Systems (3)

Conditional Requirements for the Construction Concentration:

1. conditional course work is to be completed before starting the degree program;
2. develop a sequence of prerequisite needs in consultation with an advisers;
3. conditionally admitted students may validate the required competencies by taking undergraduate courses, testing out of courses, or by well-documented experiences;
4. conditionally admitted students may be required to complete some or all of the following undergraduate courses:

IT 125	Introduction to Construction (2)
IT 201	Construction Systems (3)
IT 228	Construction Drawing (3)
IT 229	Analysis of Commercial Prints (3)
*IT 301	Planning and Scheduling (3)
*IT 302	Contract Documents, Regulations and Specifications (3)
*IT 401	Construction Estimating and Bidding (3)
*IT 403	Production Control (2)
*IT 406	Construction Law (2)
*IT 450	Fundamentals of Construction Project Management (2)

*Minimum competency level required for graduate degree program.

Manufacturing Concentration Requirements:

1. Develop a 30-semester-hour approved program with assistance from a graduate adviser;
2. complete all University Graduate School requirements;
3. apply no more than nine semester hours of 400-level approved undergraduate courses taken for graduate credit toward the 30-hour degree program;
4. if admitted conditionally, complete the required conditional undergraduate courses totalling not more than 27 semester hours.

Manufacturing Concentration—30 hours

Industrial Technology Core: six hours required

IT 640	Contemporary American Industry (2)
IT 645	Occupational Safety and Health (2)
IT 647	Industrial Research (2)

Manufacturing Technology: 14-16 hours required

IT 517	Applications of Robotics in Manufacturing (3)
IT 537	Numerical Control in Manufacturing (3)
IT 550	Advanced Statistical Process Control (3)
IT 551	Quality Assurance Experiments (2)
IT 560	Manufacturing Facility Analysis (4)
IT 613	Drafting Technology (2)
IT 615	Product Design (2)
IT 633	Plastics Technology (2)
IT 634	Plastics Forming Processes (2)
IT 641	Materials of Industry (2)
IT 698, 699	Independent Study (2, 3)

Business and Industry Core: eight to 10 hours required

ACC 501	Accounting Principles (3)
ECO 522	Collective Bargaining (2)
FIN 502	Financial Principles (3)
LAW 503	Legal Environment of Business (3)
*MGT 501	Management: Concepts, Principles and Practices (3)
MGT 576	Corporate Social Policy (3)
ORI 501	Probability and Statistics for Business (3)
ORI 502	Business Information Systems (3)
PSY 565	Industrial Psychology (2)
PSY 567	Engineering Psychology (3)

* Limited offerings:

Conditional Requirements for the Manufacturing Concentration:

1. conditional course work is to be completed before starting the degree program;
2. develop a sequence of prerequisite needs in consultation with an adviser;
3. conditionally admitted students may validate the competencies by taking undergraduate courses, testing out of courses or by well documented experiences;
4. conditionally admitted students may be required to complete some or all of the following undergraduate courses:

IT 105	Computer Application and Industry (3)
IT 122	Engineering Graphics I (3)
IT 123	Manufacturing Processes and Methods I (3)
IT 124	Manufacturing Processes and Methods II (3)
IT 203	Industrial Operations (3)
IT 223	Engineering Graphics II (3)
*IT 324	Industrial Drawing (3)
*IT 416	Computer Numerical Control (3)

- *IT 420 Industrial Quality Control (3)
- *IT 421 Manufacturing Product and Process analysis (3)
- *IT 425 Advanced Manufacturing Methods (3)

*Minimum competency level needed for graduate degree program.

Quality Concentration Option Requirements:

1. Develop a 30-semester-hour approved program with assistance from a graduate adviser;
2. complete all University Graduate School requirements;
3. earn 30 semester hours in 500- and 600-level courses;
4. satisfactorily complete a development project or thesis;
5. if admitted conditionally, complete all of the required conditional undergraduate courses totalling not more than 24 semester hours.

Quality Concentration Program—30 hours

(20-24 hours required)

- IT 647 Industrial Research (2)
- IT 691 Development Project or Thesis (2-6)
- IT 550 Advanced Statistical Process Control (2)
- IT 551 Quality Assurance Experiments (2)
- IT 552 Quality Planning (2)
- IT 553 Metrology, Inspection, and Testing (2)
- IT 554 Reliability, Maintainability & Product Safety (2)
- IT 555 Quality System Appraisal (2)
- IT 556 Human Factors in Quality Improvements (2)
- IT 651 Advanced Quality Assurance Experiments (2)

Cognate (6-10 hours required outside the IT Department) courses in either Management or Operations Research and Information Systems are recommended.

- MGT 501 Management: Concepts, Principles and Practice (3)
- MGT 567 Business Communications: Specialized Organizational Report Writing (3)
- MGT 576 Corporate Social Policy (3)
- ORI 501 Introductory Probability and Statistics for Business (3)
- ORI 502 Business Information Systems (3)
- ORI 565 Applied Linear Statistical Modeling (3)

Electives (0-4 hours required)

- *MGT 605 Organizational Theory and Behavior (3)
- *ORI 503 Production and Operations Management (3)

IT Electives (1-4)

* If MGT 501 or ORI 501 are not required, a student may use one of these courses in the cognate area.

Conditional Requirements for the Quality Concentration:

1. Conditional course work is to be completed before starting the degree program;
 2. conditionally admitted students may validate the required competencies by taking undergraduate courses, testing out of courses, or by well-documented experiences;
 3. develop a sequence of prerequisites in consultation with an adviser;
 4. conditionally admitted students may be required to complete some or all of the following undergraduate courses:
 - *IT 105 Computer Applications for Industry (3)
 - *IT 122 Engineering Graphics I (3)
 - *Manufacturing laboratory processing courses (6)
 - *IT 420 Industrial Quality Control (3)
- * Minimum competency level required for graduate degree concentration.

QUALITY TECHNOLOGY CERTIFICATE PROGRAM

Quality technology is employed by business and industry to ensure that goods and services are delivered without defects and equal or superior to consumer expectations. This quality technology certificate program allows individuals with an undergraduate degree in technical fields with or without advanced graduate degrees to pursue a professional quality certificate from the American Society for Quality (ASQC). The quality supervisor and engineer require advanced skills as described by ASQC.

The quality engineer is a professional who can understand and apply the principles of product and service quality evaluation and control. This body of knowledge and applied technologies include, but are not limited to: application and analysis of testing and inspection procedures; the ability to apply metrology and statistical methods to diagnose and correct improper quality control practices which assure product and service conformity to prescribed standards; an understanding of human factors and motivation; facility with quality cost concepts and techniques; the knowledge and ability to develop and administer management information systems and to audit quality systems for deficiency identification and correction.

Objectives of the Program

The quality technology certificate program is designed to:

1. prepare personnel to assist organizations in meeting their need for continuous quality improvement in order to remain competitive;
2. provide education in quality technology to organizations geographically located in the state of Michigan and, in particular, the southeastern region;

3. facilitate the needs of quality professionals in attaining professional certification;
4. provide graduate level education in quality technology to meet the needs of adult learners; and
5. help Eastern Michigan University meet its obligation of providing academic programs which represent state-of-the-art technology.

Requirements for Admission

All applicants for admission must:

1. meet the graduate admission requirements of the University; and
2. meet the Industrial Technology Department's graduate certificate program in quality technology (GCPQT) program admission requirements:
 - a. possess a minimum undergraduate GPA of 2.5,
 - b. have completed an undergraduate course in industrial quality control or be admitted under conditional provision,
 - c. international students must score at least 550 on the TOEFL or 85 on the MELAB before starting the GCPQT program, and
 - d. admission into the GCPQT is not to be interpreted as admission into any masters degree program.

Requirements for Completing the Program

An applicant for the GCPQT must:

1. complete any conditional requirements of the program;
2. not complete any GCPQT courses before being admitted into the program and without prior permission of the student's adviser, or the courses will not count;
3. maintain a 3.0 GPA overall in the program;
4. have completed all courses in the program; and
5. receive the recommendation of the program adviser and the Graduate School for receiving the certificate.

Quality Technology Certificate Requirements

IT 550	Advanced Statistical Process Control (2)
IT 551	Quality Assurance Experiments (2)
IT 552	Quality Planning (2)
IT 553	Metrology, Inspection, and Testing (2)
IT 554	Reliability, Maintainability & Product Safety (2)
IT 555	Quality System Appraisal (2)

INDUSTRIAL TECHNOLOGY COURSES

IT 501 Project Estimating. Two sem hours
An investigation into the estimating and bidding practices used within the construction industry in order to prepare, analyze, and submit an estimate of the costs for a project.
Prereq: IT 401 Construction Estimating and Bidding.

IT 502 Project Scheduling. Two sem hours
An investigation into advanced scheduling techniques and the application of these within the construction industry.
Prereq: IT 301 Planning and Scheduling and IT 403 Production Control.

IT 503 Construction Delays and Claims. Two sem hours
An investigation into the risks, liabilities, and responsibilities involved in today's construction industry. The areas of liability, contract interpretation, changes, changed conditions, delays, damages, documentation, and dispute resolution are addressed.
Prereq: IT 406 Construction Law.

IT 504 Project Management. Two sem hours
An investigation of the typical problems associated with construction projects and applicable management practices for solving managerial problems.
Prereq: Departmental approval.

IT 506, 507, 508 Industrial Based Colloquium. One, two and three sem hours
Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Credit/no credit.*

IT 510 Electricity-Electronics. Two sem hours
An investigation of basic theories combined with laboratory experiences and practical application of test equipment.
Prereq: IT 200 Industrial Electricity and Controls I and MTH 107 Plane Geometry.

IT 511 Electronic Control. Two sem hours
An overview of contemporary circuits and devices utilized to control machines and industrial processes, digital circuits, and microprocessor based controls. *Not open to students with credit in IT 314 Integrated Circuits: Digital or IT 434 Microcomputer Circuits.*

IT 517 Applications of Robotics in Manufacturing. Three sem hours
Analysis of case studies and development of robotic applications that address practical problems confronting technical personnel and managers working with manufacturing automation.
Prereq: IT 417 Industrial Robotics and graduate standing in industrial technology degree program or permission of instructor.

IT 537 Numerical Control in Manufacturing. **Three sem hours**
Study of the descriptions to numerical control programs for mill and drill machining. Students write and execute NC programs using COMPACTII language. Verification of programs is accomplished using computer graphics.
Prereq: IT 416 Introduction to Numerical Control.

IT 540 Recent Technological Developments. **Two sem hours**
Innovations in materials and processes and their implications for industrial education and industrial technology. Industrial visitations and other means of investigation will be employed.

IT 550 Advanced Statistical Process Control. **Two sem hours**
(Formerly Introduction to Statistical Process Control)
An advanced course in statistical process control. Topics will include special purpose control charts and procedures; analysis of runs, trends, and cycles; process and gage capability; and underlying distribution analysis.
Prereq: A course in quality assurance.

IT 551 Quality Assurance Experiments. **Two sem hours**
(Formerly Advanced Statistical Process Control)
A study of the design and analysis of experiments to improve product quality. Topics include basic concepts applying to experiments, one and two or more factor experiments, and Taguchi methods.
Prereq: A course in quality assurance and an introductory probability and statistics course.

IT 552 Quality Planning. **Two sem hours**
Procedures utilized to organize and implement the quality function including planning, budgeting information and test procedures, customer complaints, and quality function deployment.
Prereq: IT 420 Industrial Quality Control.

IT 553 Metrology, Inspection, and Testing. **Two sem hours**
A course in the technology of measurements related to the procedures for conducting inspection and tests: including control, gage capability, repair, and maintenance of measurement devices.
Prereq: IT 420 Industrial Quality Control.

IT 554 Reliability, Maintainability and Product. **Two sem hours**
A study of the long term performance of products concerned with failure and the ability to bring the products back into use. Product safety improvement and responsibility of manufacturers.
Prereq: IT 420 Industrial Quality Control.

IT 555 Quality System Appraisal. **Two sem hours**
Interpreting the effectiveness of an organization's quality system through proper information handling. Emphasis on analysis of prevention, appraisal and failure costs, and quality systems audit.
Prereq: IT 420 Industrial Quality Control.

IT 556 Human Factors in Quality Improvement. **Two sem hours**
Employment of the human resource to quality movement. Specific actions and programs to remove attitudinal barriers and provide the tools so that quality products and services are produced.
Prereq: IT 420 Industrial Quality Control.

IT 560 Manufacturing Facility Analysis. **Four sem hours**
This course compares textbook manufacturing theory with applied manufacturing principles. Various functions of actual manufacturing operation will be discussed and the direct impact on production output for a given manufacturing facility.
Prereq: Senior status with a 2.75 grade point average and permission of The Graduate School, or graduate status and permission of the instructor.

IT 590, 591, 582 Special Topics. **One, two and three sem hours**

IT 594, 595, 596, 597 Workshops in Selected Areas. **One, two, three and four sem hours**

IT 610 Electronic Circuitry. **Two sem hours**
Electronic theories as related to solid state circuits. Solid state design, printed circuit board fabrication, and circuit construction.
Prereq: IT 414 Integrated Circuit: Linear.

IT 613 Drafting Technology. **Two sem hours**
Drafting methods and materials: theory and application of multi-view drawing, auxiliaries, cams and gears, mechanisms, dimensioning, and geometric tolerancing.
Prereq: IT 122 Technical Drawing.

IT 615 Product Design. **Two sem hours**
Principles of product design: emphasis on the design process, basic elements of design, and interdependence of design and human needs.
Prereq: IT 122 Engineering Graphics I.

IT 616 Analysis of Commercial Structures. **Three sem hours**
(Formerly Architectural Drafting and Design)
An investigation into the construction industry practices associated with the use of working drawings to analyze project requirements for bidding, planning, scheduling, and controlling construction projects.

IT 618 Computer Assisted Design. Two sem hours
The use of the computer and FORTRAN programming to solve graphic design problems. Experiences are provided on computer terminals to enter data, preview a design, and execute a program.
Prereq: MTH 107 Plane Trigonometry and a course in FORTRAN programming.

IT 620 Power Systems. Two sem hours
The technology involved in harnessing and controlling power, including its sources, generation, transmission and utilization; the machines and devices used to convert power in industrial application.

IT 621 Energy Control Analysis. Two sem hours
Fluid power and direct drive transfer systems are studied in relation to energy utilization in industry. Principles of hydraulics, pneumatics, fluidics, transmission systems, and instrumentation related to control.
Prereq: IT 318 Energy Transfer Systems and one undergraduate course in physics or permission of instructor.

IT 624 Project Productivity and Cost Control. Three sem hours
An investigation into the contemporary problems related to construction productivity and methods to be employed to control construction costs.
Prereq: IT 403 Production Control.

IT 626 Construction Processes. Two sem hours
(Formerly Solar Energy Application)
An investigation of the more accepted and standard practices associated with the process of construction.

IT 633 Plastics Technology. Two sem hours
Sources and properties of plastics materials; testing, chemical production, molding and forming processes; the fabricating and finishing industry. *Not open to students with credit in IT 202 Plastics.*

IT 634 Plastics Forming Processes. Two sem hours
Selection of plastics resins for product design; application of resins to industrial production; molding, forming, and fabricating techniques including mold design and testing.
Prereq: IT 633 Plastics Technology or IT 202 Plastics.

IT 636 Metals Technology. Two sem hours
A study of the metals industry: sources, characteristics, and refining metals; testing procedures; machining and processing applications; production methods.
Prereq: IT 123 Metals Processes or IT 215 Machine Tool Metalworking.

IT 640 Contemporary American Industry. Two sem hours
The structure of the industrial institutions in American society; formal organization, production, financial structure, research and development, and union organization in industry. *Not open to students with credit in IT 103 Introduction to Modern Industry.*

IT 641 Material of Industry. Two sem hours
Selected industrial materials: sources, properties, characteristics, analysis, and testing.
Prereq: IT 123 Metal Processes or IT 215 Machine Tool Metalworking and IT 202 Plastics.

IT 645 Occupational Safety and Health. Two sem hours
An exploration of occupational safety and health from a human behavior perspective. Attention will be given to the development of safety management systems. Legislative safety and health policies will be analyzed to determine their effectiveness.

IT 647 Industrial Research. Two sem hours
A study of the roles, purposes, and procedures for conducting research in technical fields.

IT 648 Principles of Construction Technology. Two sem hours
A study of the production system of the construction industries, utility systems, housing construction, and city and regional planning practices.

IT 649 Principles of Manufacturing Technology. Two sem hours
A study of the production system of manufacturing; researching, designing, and engineering products and processes as well as the production of components, sub-assemblies and final assemblies.

IT 650 Advanced Principles of Manufacturing Technology. Two sem hours
An application of basic concepts and techniques in related areas of manufacturing technology to include forecasting, quality control, planning and scheduling, and methods analysis. Emphasis will be placed on utilizing existing and developing new computer software in an applied context.
Prereq: IT 649 Principles of Manufacturing Technology or equivalent.

IT 651 Advanced Quality Assurance Experiments. Two sem hours
Advanced work in quality experiments with emphasis on in-plant applications relative to on-line and off-line investigation for the purpose of process and product improvement.
Prereq: IT 420 Industrial Quality Control, ORI 501 Quality Assurance Experiments, and ORI 501 Probability and Statistics.

IT 679, 680, 681 Special Topics. One, two and three sem hours

IT 682, 683, 684, 685 Workshops in Selected Areas. One, two, three and four sem hours

IT 688 Cooperative Education. Three sem hours
The industrial technology student will be placed on a job that relates to his or her primary area of study for one semester. During this period, regular employee benefits may be received. Limited to students without a baccalaureate in industrial technology who do not possess relevant industrial experience. *Credit/no credit.*
Prereq: Departmental permission.

IT 689 Industrial Internship. Two sem hours
A field study of industrial theory and practice through directed internship experiences with cooperating industries. Designed for students desiring experiences beyond those obtained in their previous or present employment. *Credit/no credit.*

IT 690, 691, 692 Degree Option: Thesis. One, two and three sem hours
A research-oriented study conducted under the supervision of an adviser and departmental graduate committee, under the guidelines described in the *EMU Thesis Manual.*
Prereq: Departmental approval plus 12 credit hours in one's graduation concentration.

IT 690, 691, 692 Degree Option: Development Project. One, two and three sem hours
A theory-application project conducted under the supervision of an adviser and departmental graduate committee.
Prereq: Departmental approval plus 12 credit hours in one's graduate concentration.

IT 697, 698, 699 Independent Study. One, two and three sem hours
Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" and "Research Proposal Format" guideline sheets are available from the department.
Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may be elected for credit toward the master's degree in industrial technology with a manufacturing concentration. A maximum of nine hours of undergraduate course work are permitted in the earning of the manufacturing concentration.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling the course: otherwise, you will receive undergraduate credit.

IT 409	Plastics Mold Design and Construction (3)
IT 410	Plastics Product Design (3)
IT 411	Plastics Fabricating and Decorating (3)
IT 416	Introduction to Numerical Control Programming (3)
IT 417	Industrial Robotics (3)
IT 431	Interactive Industrial Computer Graphics (3)
IT 432	3-D Computer-Aided Design (3)
IT 433	Color Concepts in Computer-Aided Design (3)
IT 434	Microcomputer Circuits (3)
IT 485	Computer-Aided Manufacturing (3)

INTERDISCIPLINARY TECHNOLOGY

Paul Kuwik
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The Department of Interdisciplinary Technology offers two graduate programs: master of liberal studies in technology and master of science in polymer technology with a concentration in coatings.

MASTER OF LIBERAL STUDIES IN TECHNOLOGY

The M.L.S. in technology addresses the social and economic impacts of technology. The main objective of this interdisciplinary degree program is to help prepare students for managerial, administrative or consulting positions with technology-based organizations. The master of liberal studies in technology is flexible in format. Students may tailor their program of study to meet specific educational and employment objectives. In particular, M.L.S. students will acquire:

1. comprehension of the central concepts and issues related to the study of technology and society;
2. knowledge of significant technical developments in history and the effects of these developments on individuals, societies, and the environment;
3. an understanding of technological systems and the present and future impact of such systems on the quality of life;
4. the ability to integrate information from a variety of sources and disciplines in solving social-technical problems; and
5. a knowledge of technology assessment techniques and the ability to identify, describe, discuss, and utilize the major tools and methodologies for assessing technology.

Special Features of the M.L.S. in Technology Program

Flexibility—Students can custom design a program to suit their educational and employment objectives.

Evening Classes—Mature students/career changers can pursue their degree on either a full-time or part-time basis.

Internships—Placement within business or industry is an option for the final project.

Contact—with practitioners in business or industry. Lectures, seminars, and conferences with outside experts are an established part of this program.

Admission Requirements

Students with a bachelor's degree from an accredited institution who have an overall GPA of 2.75 (or 3.0 in their final 60 hours of undergraduate study) are eligible to apply for admission. Individuals with degrees in business, technology, humanities, arts, and sciences are encouraged to apply. Two letters of recommendation are required as is a program planning interview with an adviser.

Conditional Admission

Conditional Admission Condition 1: Curriculum Deficiencies is a conditional admission for students who meet the degree admission requirements of The Graduate School, but have curricular deficiencies in their undergraduate program and/or other departmental standards and therefore do not meet departmental admission requirements.

Non-Degree Admission Status

For those students who show promise but do not meet the undergraduate grade point average (2.5) requirement of The Graduate School or the departmental GPA requirements, whichever is higher, non-degree admission (status I: academic deficiencies) may be granted. (See Non-Degree Admission Status, page 19.) Students may not repeat courses to attain the required grade point average.

Students who successfully meet the probationary requirements of conditional or non-degree admission will be granted regular admission.

Program Description and Requirements for the Degree

A total of 30-32 semester hours is required for the M.L.S.:

- 14 semester hours of the core curriculum;
- 12 semester hours of complementary concentration; and
- 4 to 6 semester hours of final project work.

The core curriculum of the M.L.S. degree consists of five courses in technology studies that are required for every student.

Core Curriculum

- IDT 500 Introduction to Interdisciplinary Technology (3)
 IDT 501 History of Technology (3)
 IDT 601 Multidisciplinary Seminar in Technology (2)
 IDT 602 Contemporary Issues in Technology (2)
 IDT 680 Technology Assessment (3)

Complementary Concentrations

Students can select two or more complementary concentrations in other fields. A minimum of four hours is required in each of the complementary areas of study (12 hours total required).

Complementary concentrations are available in the following areas:

Communication
 Computer science
 Economics
 Educational leadership
 Geography
 Industrial education
 Industrial technology
 Labor studies
 Management
 Marketing
 Physics
 Public administration
 Psychology
 Sociology
 Technical writing
 Training management

Other areas also are available. Students should consult with the M.L.S. adviser for additional information and specific course approval.

Capstone Experience

Four to six hours of final project work are required. Students may elect Option I or Option II. Those contemplating doctoral study should elect Option I.

Option I - Thesis

IDT 690, 691, 692 Thesis (6)

Option II - Independent Study

IDT 697, 698, 699 (4)

Additional information about the master of liberal studies in technology can be obtained from the program coordinator. Applications for admission should be submitted to EMU's Graduate School Office.

MASTER OF SCIENCE IN POLYMER TECHNOLOGY

The main objective of this program is to graduate chemists with a strong background in coatings who would either be employed by the coatings industry or who would continue their education at the Ph.D. level. As such, graduates from this program receive the best possible training which implies that they must have an ACS approved chemistry degree, or equivalent, for admission into the program. The program is interdisciplinary in nature and utilizes courses from various departments. A faculty committee, composed of faculty from chemistry and interdisciplinary technology, will function as the graduate committee for the program.

Admission Requirements

All applicants for admission must:

1. meet degree admission requirements of The Graduate School;
2. possess a baccalaureate degree in chemistry (minimum 24 hours in chemistry);
3. have had one year of physical chemistry;
4. have had one year of organic chemistry;
5. have had an instrumentation class.

Exceptions can be made providing the student elects and passes the approved undergraduate course(s) at Eastern Michigan University.

Program Description and Requirements for the Degree

A total of 30 semester hours is required for the M.S. polymer technology: 10 semester hours of the core curriculum; 20 semester hours coatings specialization.

Core Curriculum—10 hours

- CHM 562 Statistical Mechanics and Chemical Kinetics (2)
 CHM 564 Physical-Chemical Characterization of Polymers (2)
 CHM 610 Information Retrieval in Chemistry (1)
 CHM 665 Physical Chemistry of Polymers (2)
 CHM 675 Advanced Organic Polymer Chemistry (3)
 CHM 693 Seminar in Chemistry (1)

CHOOSE ONE*Option I Coatings Concentration (12)*

- IDT 400 Polymers and Coatings I (3)
 IDT 401 Polymers and Coatings II (3)
 IDT 402 Polymers and Coatings Lab (3)
 CHM 572 Spectrometric Organic Structure Determination (3)

Option II Management Concentration (12)

- MGT 501 Management: Concepts, Principles, and Practices (3)
 MGT 567 Business Communications: Specialized Organization Report Writing (3)
 MKT 510 Marketing (3)

Students who have already taken the 400 coating series may take Option II which may be graduate level courses in any other discipline. The example illustrated above is the business management concentration.

Capstone Experience	8-12
IDT 590/591/592 Special Topics in Coatings	4-6
IDT 697/698/699 Research in Coatings	4-6
Total	30-34

A non-thesis option may be elected by students from industry on the recommendation of the graduate advisory committee. These students may replace the research credits with approved graduate courses in any area approved by the graduate advisory committee.

INTERDISCIPLINARY TECHNOLOGY COURSES

IDT 500 Introduction to Interdisciplinary Technology. Three sem hours
(Formerly Introduction to the Study of Technology)

An interdisciplinary overview of basic concepts and approaches to the study of technology and culture. Included introductions to the philosophy of technology, history of technology, future studies and contemporary issues in technology.

Prereq: Graduate standing at Eastern Michigan University.

IDT 501 History of Technology. Four sem hours

An overview and in-depth examination of major technical developments that have affected the course of human history. Emphasis is placed on the inter-relationships of the technical to the socio-cultural milieu.

Prereq: Graduate standing at Eastern Michigan University.

IDT 505 Managing Your Career in Technology. Three sem hours

Designed for the mid-level professional or manager in a technology-based industry. Self-assessment of interests, values, skills, and motivation; job/career decision-making and mid-career change methodology.

IDT 510 Principles of Managing Technological Enterprises. Three sem hours

Characteristics of high-tech markets; motivating high-tech researchers and developers; manufacturing products with short life cycles, finance and planning in a high-tech environment; attracting and keeping the best human resources.

Prereq: IDT 500 Introduction to Interdisciplinary Technology or departmental permission.

IDT 514 Graphic Presentation. Two sem hours
(Formerly IT 514)

The techniques, processes, and procedure of developing graphic presentation materials. Topics include designing, recording, reproducing, and storing and retrieving systems. Laboratory activities are required.

Prereq: IT 122 Technical Drawing.

IDT 517 Graphic Arts. Two sem hours
(Formerly IT 517)

General graphic arts including layout and design, composition, photo mechanics, offset and screen process reproduction.

IDT 520 Health Care Technology—The Societal Impact. Three sem hours

Computers in medicine: present and potential applications; medical biotechnology; winning the fight against disease; bionics: curing the blind, the lame, the deaf, and others; impact on health professions and on future society.

IDT 555 Technology and Organization. Three sem hours
(Formerly IDT 591)

Development, analysis, and theory of technological organizations as well as practical problems confronting technological managers at a time of transition as exemplified by leading U.S. and Japanese corporations.

Prereq: Graduate standing in interdisciplinary technology or departmental permission.

IDT 556 Introduction and Implementation of Technological Change. Three sem hours
(Formerly IDT 591)

The course will focus on principles and theories of technological innovation, overcoming resistance to change, participative management in theory and in practice. Case studies will be used and discussed intensively.

Prereq: Graduate standing in interdisciplinary technology or departmental permission.

IDT 587 Cooperative Education in Interdisciplinary Technology. Three sem hours

Co-op is an educational strategy that integrates classroom theory with a semester of paid work experience in an area related to the student's field of study. Work sites must be approved by the coordinator of Cooperative Education and the Department of Interdisciplinary Technology. Additional assignments may be required. *Credit/no credit.*

Prereq: Departmental permission.

IDT 601 Multidisciplinary Seminar in Technology. Two sem hours

A multidisciplinary seminar which explores different philosophic and discipline-based perspectives of technology around a special topic. Usually a lecture series with outside speakers; held at a conference center. *May be repeated for credit if course content is different.*

IDT 602 Contemporary Issues in Technology. Two sem hours

An in-depth examination of a particular issue (or set of related issues) usually of topical interest related to technology and society. This course generally will take place in business and industry settings. *May be repeated for credit if course content is different.*

Prereq: IDT 500 Introduction to Interdisciplinary Technology or departmental permission.

IDT 617 Visual Communications. Two sem hours
(Formerly IT 617)

Application of visual communication theories in the production of media including photography, photo mechanics, offset, and screen processes.

IDT 680 Technology Assessment. Three sem hours
(Formerly IDT 600)

A survey of the field of technology assessment that includes theoretical bases, unique modes of inquiry, major assumptions, institutional activities, major problems, and future trends.

Prereq: Completion of IDT 500 Introduction to Interdisciplinary Technology and IDT 501 History of Technology.

IDT 690, 691, 692 Thesis. One, two and three sem hours

Prereq: Departmental permission.

IDT 697, 698, 699 Independent Study. One, two and three sem hours

Prereq: Departmental permission.

OTHER COURSES/PROGRAMS

The Department of Interdisciplinary Technology currently offers programs and courses in polymers and coatings technology, rubber technology, energy management, communications technology, coating finishes and wire technology. Among the courses offered are:

- IDT400 Polymers and Coatings Technology I (3)
- IDT 401 Polymers and Coatings Technology I Laboratory (3)
- IDT 402 Polymers and Coatings Technology II (3)
- IDT403 Polymers and Coatings Technology II Laboratory (3)
- IDT404 Photo Communications Workshop (3)
- IDT 405 Coating Processes I (3)
- IDT406 Coating Processes I Laboratory (3)
- IDT 407 Coating Processes II (3)
- IDT 409 Emerging Technologies in Storage and Retrieval (3)
- IDT 410 Mechanical and Physical Properties of Polymers (3)
- IDT 411 Mechanical and Physical Properties of Polymers Laboratory (1)
- IDT 412 Energy Measurement (3)
- IDT 413 Computers in Aviation (3)
- IDT 414 Rubber Technology II (2)
- IDT 415 Computer Programming for Energy Management (3)
- IDT 420 Women and Technology (3)
- IDT 422 Aviation Maintenance, Operations and Management (3)
- IDT 425 Communication Technology and Social Change (3)
- IDT 430 Seminar in Energy Management Technology (3)
- IDT 431 Aviation Facilities/Construction (3)
- IDT 436 Electronic Publishing Technology (3)
- IDT460 Coating Formulation (3)
- IDT495 Technology, Values and the Future (3)

The above upper-division undergraduate courses may be taken for graduate credit. *A maximum of nine credit hours of 400-level courses may be applied on the department's degree program.* See the undergraduate catalog for course descriptions.

If you intend to enroll in any of the above undergraduate courses for graduate credit, you must come to The Graduate School for written permission before enrolling in the course; otherwise, you will receive undergraduate credit.

SPECIAL STUDENT SERVICES

ADVISING

In an effort to provide guidance for all students who are granted admission to a graduate degree program, a system of advising has been established. Upon notification of admission to a degree program by The Graduate School, the student is given the name, office address and telephone number of the designated adviser. The advising program assists in the exploration of degree requirements, evaluation of applications for admission to a degree program, preparation of a plan of study, approval of program changes, and recommendation for graduation.

Each prospective degree student is therefore encouraged to make use of this service since a program of study is valid only when properly authorized by a designated adviser and when it conforms with the minimum requirements of The Graduate School. Students who desire advising prior to making a decision on a degree program should contact the assistant dean of The Graduate School. Students who are interested in completing a Provisional or Continuing Certificate should contact the Office of the Registrar or the Office of Continuing Certification for specific requirements. *Because credits earned to satisfy certification do not apply automatically to a degree program, students seeking certification are also urged to contact a degree adviser if the completion of a master's program is contemplated for a later date.*

COORDINATORS OF ADVISING BY PROGRAM AREA

College of Arts and Sciences

Applied Economics:
Raouf S. Hanna
703-D Pray-Harrold (487-0003)

Art Education, M.A.:
Gretchen Otto
116 Ford Hall (487-3388)

Art Studio, M.A.; M.F.A.:
David Sharp
114 Ford Hall (487-0465)

Biology:
316 Mark Jefferson (487-0441)

Chemistry:
Edward L. Compere, Jr.
212-A Mark Jefferson (487-2057)

Communication and Theatre Arts:
Parker R. Zellers
102 Quirk (487-1152)

Computer Science:
William W. McMillan
511-G Pray-Harrold (487-0110, 487-1063)

Computer Science Teacher Education:
Mildred D. Litner
511-B Pray-Harrold (487-1104, 487-1063)

Criminology and Criminal Justice:
Werner Einstadter
712-E Pray-Harrold (487-0012)

Development Trade and Planning:
Raouf S. Hanna
703-D Pray-Harrold (487-0003)

Drama/Theatre for the Young,
M.A.; M.F.A.:
Patricia Moore Zimmer
104 Quirk (487-0031)

Economics:
Raouf S. Hanna
703-D Pray-Harrold (487-0003)

English:
James A. Reynolds
613-J Pray-Harrold (487-1363)

Foreign Languages:
219 Alexander Building (487-0130)

General Science:
Jon K. Wooley
303 Strong Hall (487-4144)

Geography:
Robert Ward
213 Strong Hall (487-3140)
C. Nicholas Raphael
118 Strong Hall (487-1480)

Historic Preservation Planning:
Marshall McLennan
225 Strong Hall (487-0232)

History:
JoEllen Vinyard
701-Q Pray-Harrold (487-0053)

Language and International Trade:
Ronald Cere
219 Alexander Building (487-0130)

Liberal Studies:
Social Science and American Culture:
JoEllen Vinyard
701-Q Pray-Harrold (487-0053)

Women's Studies:
Margaret A. Crouch
720 Pray-Harrold (487-1177)

Mathematics:
Kenneth Shiskowski
614-R Pray-Harrold (487-1294, 487-1444)

Mathematics, Computer Science:
Kenneth Shiskowski (Mathematics)
614-R Pray-Harrold (487-1294, 487-1444)
William W. McMillan (Computer Science)
620 Pray-Harrold (487-0110, 487-1063)

Music:
Mary D. Teal
N-101 Alexander (487-1044)

Physics:
Richard Roth
303 Strong Hall (487-4144)

Physics Education:
Daniel Trochet
303 Strong Hall (487-4144)

Psychology, General:
John Knapp
510 Mark Jefferson (487-0104)

Psychology, Clinical:
Kay Hodges
537 Mark Jefferson (487-1155)

Psychology, Clinical Behavior:
Peter Holmes
Marilyn Bonem
513 Mark Jefferson (487-0123)

Public Administration:
Raymond A. Rosenfeld
601/J-K Pray-Harrold (487-2522)

School Psychology:
Gary Navarre
227 Rackham (487-0026)

Social Science:
JoEllen Vinyard
701-Q Pray-Harrold (487-0053)

Sociology:
Patricia Ryan
712-S Pray-Harrold (487-0372)

Spanish (Bilingual-Bicultural Education):
Phyllis Noda
219 Alexander Building (487-0130)

TESOL (Teaching English to Speakers of
Other Languages):
JoAnn Aebersold
219 Alexander Building (487-0130)

Women's Studies:
Margaret A. Crouch
720 Pray-Harrold (487-1177)

College of Business

Accounting:
Thomas Cianciolo
406 Owen (487-3320)

Business Administration:
William Whitmire
401 Owen (487-4444)

Computer-Based Information Systems:
V. M. Rao Tummala
412 Owen (487-2454)

Finance:
William Whitmire
401 Owen (487-4444)

Human Resource/Management Organizational Development:
Raymond E. Hill
466 Owen (487-3240, 487-2468)

College of Education

Elementary Education, Early Childhood Education,
Educational Psychology, K-12 Curriculum, Middle
School Education, Reading, Secondary School
Teaching, Social Foundations, CASCI:
James Bushey
234 Boone Hall (487-3260)

Educational Leadership:
Doctoral Program: William M. Hetrick
Specialists and Master's Degrees: Jack D. Minzey
13 Boone Hall (487-0255)

Guidance and Counseling:
Benjamin W. VanRiper
13 Boone Hall (487-3270)

Physical Education:
John E. Sheard
233 Warner (487-0090)

Special Education, General:
Joan Quinlan
230 Rackham (487-3302)

Special Education, Speech and Language
Pathology:
Carole W. Gorenflo
123 Rackham (487-4413)

College of Health and Human Services

Human, Environmental and Consumer Resources:
Ruby L. Meis
206-A Roosevelt (487-2490)

Occupational Therapy:
Ruth Ann Hansen
324 King Hall (487-0461)

Social Work/Gerontology
Elizabeth Oates Schuster
416 King Hall (487-0393)

College of Technology

Business Education:
Ann Remp
17 Sill Hall (487-4330)

Industrial Education:
James L. Barnes
20 Sill Hall (487-4330)

Industrial Technology:
John A. Weeks
118 Sill Hall (487-2040)

Liberal Studies Technology:
Ronald Westrum
122 Sill Hall (487-1161)

Polymer Technology:
Taki Anagnostou
122 Sill Hall (487-1161)

CAREER SERVICES CENTER

Acting Director: **J. Michael Erwin**
Fourth Floor, Goodison Hall (313) 487-0040

The center offers active assistance to graduates and alumni in seeking employment after graduation and in professional advancement throughout their career. Notices of career opportunities are provided in business, industry, government, health and human services, and education from pre-school through university level.

Such assistance includes (1) credential reference services, (2) resume and letter of application assistance, (3) interview preparation and technique, (4) the Education Bulletin, listing current vacancies, employers' addresses and method of contact, (5) on-campus interview appointments with employer representatives, (6) employer

career literature, directories and job description materials and (7) a computerized candidate referral service.

It is recommended that each graduate register at the Career Services Center and develop a credential file for future reference use.

The telephone number of the Career Services Center is (313) 487-0040.

CENTER FOR RESEARCH SUPPORT

215 Library 487-2254
Director: **Stuart A. Karabenick**

The CRS provides a full range of support services for faculty and graduate students engaged in research and scholarly activity. Individual consultation is available at all project phases. Services include:

- Research Design
- Proposal Development
- Sampling
- Questionnaire Design
- Data Management
- Statistical Analysis
- Presentation Graphics
- Manuscript Editing

The CRS also presents workshops and demonstrations on topics relevant to the research process, and houses Inter-University Consortium for Political and Social Research (ICPSR) code books and the Sage Series: Quantitative Applications in the Social Sciences.

UNIVERSITY CHILDREN'S INSTITUTE

Snow Health Center (313) 487-1126
Rackham Building (313) 487-2348

Director: **Lindy Buch**
Coordinator of Services: **Lorraine Paffenroth**
Coordinator of Programs: **Terry McVicar**

The University Children's Institute offers a play-based, developmental child care program for children eighteen months through five years of age, as well as a kindergarten enrichment program. The program operates primarily as a service to students, faculty and staff, but also is open to community families. Hours are 7:30 a.m. to 5:30 p.m., Monday through Friday, year-round. Hours are reduced during University breaks and holidays. Evening care also is available Monday through Thursday from 4:45 p.m. to 9:45 p.m.

The toddler programs are housed in Snow Health Center, while the preschool and evening programs are housed on the lower level of the Rackham Building.

The kindergarten enrichment program will supplement regular public school kindergarten schedules. Children will attend the Children's Institute mornings or afternoons to complement their kindergarten programs. EMU will provide transportation to and from Ypsilanti's Perry Child Development Center for kindergartners who participate. Please call the University

Children's Institute office at 487-1126 for complete program, registration, and fee information.

FOREIGN STUDENT AFFAIRS

Director: **Paul Dean Webb**
209 Goodison Hall (313) 487-3116

The Office of Foreign Student Affairs operates to assist the nearly 1,100 foreign students at Eastern Michigan University to achieve their educational and career goals. The OFSA provides 28 specialized services for these students from 92 different countries. Included are pre-arrival contact, initial orientation, on-going advising on any matter that relates to their stay, the preparation of documents needed to verify enrollment and cost of studying at Eastern Michigan, as well as assistance in maintaining a favorable immigration status. The office regularly promotes cross-cultural programs and acts as a consultant on foreign student related questions.

HANDICAPPED STUDENT SERVICES

Dean: **Bette C. White**
218 Goodison Hall (313) 487-3116

The Office of Special Student Services utilizes resources of both the campus and the community and its agencies to meet the needs of handicapped students and to support them in meeting their educational goals. Michigan Vocational Rehabilitation and the Michigan Commission for the Blind are both used as supportive agencies in assisting some students.

Students may also request aid in finding note-takers, relocating classrooms, assistance with wheelchairs, special housing accommodations, and procedures for applying for interpreters. Since it is the intent of the office to respond to students' unique needs, students are urged to contact the office *personally* for information and/or assistance.

HOUSING AND DINING SERVICES

Acting Director: **James Vick**
Dining Commons #1 (313) 487-1300

University Housing and Dining Services offers a variety of housing and dining services as an aid to the academic achievement of both married and single graduate students.

Student families enjoy apartment style living offered in the University's three family housing communities that are convenient, low-cost, and offer an environment that shares an appreciation of the academic needs of the married student. One- and two-bedroom furnished apartments are available, as are a limited number of unfurnished units. Unmarried graduate students are welcome in any residence hall facility that appropriately meets their life style needs. Many, however, choose the

graduate floor in Walton Hall. Walton-Putnam Hall is open year round for the convenience of graduate students who may have a more independent life style or who wish to pursue their studies during vacation breaks. Only double room occupancy is available. The unmarried graduate student interested in apartment-style living will be particularly pleased with the Brown-Munson apartments. These furnished one and two bedroom units, located in the heart of campus, have variable rental rates, depending on apartment size and number of occupants. All apartments are carpeted, air-conditioned, include basic utilities, and have security monitors for the exterior doors.

As space is limited, you should contact the University Housing/Dining Services Office for information on rental rates and food service fees as soon as you are admitted. University Housing and Dining Services is located on the lower level of Dining Commons #1 (313) 487-1300.

University Dining Services provide several options to meet the varying appetites and dining habits of today's on-the-go lifestyles. Graduate students who wish to minimize food preparation time but not choose a board plan may purchase an A la Carte card that permits them to spend their prepaid balance at any dining commons, Eastern Eateries, and other designated eating establishments. Inquires should be directed to Housing/Dining Services.

OFFICE OF VETERANS AFFAIRS

Officer: **Robert E. Teehan**
201-202 Goodison Hall (313) 487-3116

The Office of Veterans Affairs coordinates all campus services for veterans entering or returning to the University to complete their education. It is the resource center for veterans' benefits and the office where veterans must report successful academic progress to maintain benefits, class drops and adds, or changes in personal status affecting benefits. Students receiving benefits and not obtaining a satisfactory grade point average will be ineligible for further certification for such benefits at a point no later than one consecutive semester after the student initially failed to maintain satisfactory academic progress.

The office also assists veterans in obtaining housing and financial aid, and works closely with disabled veterans to provide full educational benefits. Any questions veterans may have should be directed to a representative in this office. For information regarding payment of tuition and other matters of interest to the veteran, please contact the Veterans Affairs Office, 201 Goodison Hall.

Eastern Michigan University provides information about students receiving educational assistance benefits to the Veterans Administration, in accordance with federal mandate and University policy.

UNIVERSITY ADVANCEMENT

OFFICE FOR ALUMNI RELATIONS

Director: **George Beaudette**
 Assistant Director: **Carole Lick**
 15 Welch Hall (313) 487-0250

Alumni are Eastern Michigan University's lifeline to each of the 50 states, to every community in the state of Michigan, to business and industry across the country and to the world-at-large. The continuing interest of graduates and former students is a major investment in the progress and future of EMU.

The **Office for Alumni Relations** is the coordinating body for all alumni activity and the means by which personal relationships established during student days can be maintained and renewed.

It is responsible for updating the computerized list of more than 76,000 known alumni, assisting in special reunions of various constituent groups of alumni, providing programs for special alumni meetings, and giving staff support to the Alumni Association and various alumni chapters. Special activities include Homecoming, golf outings, theatre parties, athletic-related events and the Outreach Program.

The Alumni Association is governed by a 24-member Board of Directors elected in the fall of each year by association members. The president of the University is an ex-officio member of the board and the director of the Office for Alumni Relations serves as the executive director.

The association plans programs of interest for alumni and serves as the vehicle for communicating to the University, faculty and administration the concerns of EMU's alumni as they relate to the development of the University.

In March 1988, the association established an official membership program that provides a variety of benefits for members including a monthly newsletter and the quarterly alumni magazine, *Eastern Today*. The newsletter is a resource for current information on alumni events and campus news. The magazine is designed to enhance communications about and among alumni, students, parents, faculty, administration, and friends of EMU.

The association is responsible for the Memorial Chimes and Pierce Hall clocks given in former years, and more recently for gifts to the University Library, various established funds and scholarships, and additional scholarships and aid to student organizations. Charles McKenny Union, completed in 1931 and built through the cooperative efforts of alumni and the University, stands as a visible symbol of the association's on-going service to EMU.

OFFICE OF UNIVERSITY DEVELOPMENT

Director: **Jack I. Slater, Jr.**
 Assistant Director: **Beverly J. Farley**
 11 Welch Hall, (313) 487-0252

The **Office of Development** was established in 1975 to create a new awareness of the University's ever-increasing need for private support and to organize a University-wide development program.

Its primary functions include the identification, cultivation, and solicitation of alumni, friends, parents, corporations, foundations, and civic and labor organizations; the development of direct-mail, planned giving, and other programs to meet specific annual, capital and endowment objectives; the receipt, acknowledgment, and accurate recording of all gifts to the University; and the coordination of all fund raising activities undertaken in the name of Eastern Michigan University.

OFFICE OF RESEARCH DEVELOPMENT

Director and Associate Graduate Dean: **David L. Clifford**
 Associate Director: **Cheryl Kozell**
 Research Associate: **Michelle Barnes**
 B-18 Goddard Hall (313) 487-3090

The **Office of Research Development's** objectives are to stimulate, initiate, develop, and administer externally funded activities in the University by working with faculty, administration, and students interested in obtaining funds for independent research, demonstration programs, training, instruction, service, experimental projects, and other efforts directed toward expanding the scope and quality of the University.

Its activities include:

1. identification of funding sources through liaison with governmental and private agencies, screening of program announcements and requests for proposals, and personal contacts;
2. providing information on funding opportunities;
3. maintaining informational files on private, state and federal funding programs and updating changing priorities or funding levels of potential sponsors;
4. assisting faculty and staff in developing workable project plans and budgets;
5. assisting proposal writers in editing, typing and preparing proposals for submission, obtaining all necessary University approvals, and formally submitting the completed application to the funding agency;
6. assisting in the administration of externally sponsored programs by providing post-award support services to grant recipients, including negotiation and writing of grant and contract agreements;
7. exercise oversight of research and other projects to assure compliance with applicable federal regulations such as those covering the use of human subjects, the care and use of animals, and scientific misconduct.

STUDENT REFERENCES

Dean of Students: Bette White
202 Goodison Hall (313) 487-3116

OFFICIAL POLICIES regarding student(s)/student organizations, conduct, judicial structure and grade grievance procedures are established by the University's Board of Regents. Copies of the Conduct Code and Judicial Structure for Students and Student Organizations and the Grade Grievance Procedures may be obtained in the Dean of Students Office.

SECTION I. CONDUCT CODE FOR STUDENTS

A. UNIVERSITY-WIDE REGULATIONS

The following conduct, should it take place on University owned or controlled property or at a University sponsored or supervised event, may result in disciplinary action by the University, including dismissal from the University.

1. **Use of Alcohol.** Consumption or possession of alcoholic beverages by persons under 21 years of age. Consumption or possession of alcoholic beverages by any person at any place or at any time where not specifically permitted by University policy or regulation.
NOTE: Transportation in sealed containers to and from an authorized area or place is permissible if the person in possession has attained the legal age as prescribed by Michigan law for the legal possession of alcoholic beverages.
 2. **Drugs**
 - a. **Drug Distribution.** Distribution of narcotic or drug substances in violation of local, state, or federal drug or narcotic laws.
 - b. **Drug Usage.** Use or possession of any drug or narcotic in violation of local, state, or federal drug or narcotic laws.
 3. **Property**
 - a. **Theft** of University property or property of a member of the University or visitor.
 - b. **Damage, destruction, or defacement** of University property or property of a member of the University or visitor.
 - c. **Wrongful appropriation** of University property or property of a member of the University or visitor.
 - d. **Unauthorized possession** of University property or property of a member of the University or visitor.
 4. **University Facilities**
 - a. **Unauthorized use** (including entry to, occupation of, or blocking ingress or egress) of University facilities such as but not limited to buildings, classrooms, hallways, entryways, conference rooms, campus grounds, as well as unauthorized use of vehicles, equipment, services, or University name or logo (including University Computing Center).
 - b. **Gambling** on campus for money or other things of value except as provided by law.
 - c. **Pets.** Dogs, cats, reptiles, or other animals are prohibited in University buildings or on University grounds, except where properly authorized.
5. **Disruptive Conduct**
 - a. **Active participation** in or instigation of disruption or obstruction of any University activity.
 - b. **Disturbance** of or harassment of any member of the University community or visitor.
 6. **Physical Abuse**
 - a. **Physical abuse** or threat of physical abuse or unwarranted inflammatory provocation to physical abuse against any member of the University community or any person on University property or conduct which threatens or endangers the mental or physical health or safety of any such person.
 - b. **Sexual harassment** means unconsented physical contact of a sexual nature, unwelcome requests for sexual favors and other verbal or physical conduct or communications constituting sexual harassment.
 7. **Falsification of Records**
 - a. **Furnishing false information** to the University.
 - b. **Forgery, alteration or improper use** of University documents, records, or identification.
 8. **Firearms, Weapons and Explosives**
 - a. **Possession or use** of firearms and other weapons.
 - b. **Possession or use** of firecrackers, gunpowder, explosives or incendiary devices, or other materials which endanger health or safety.
 9. **Fires or Fire Alarm Systems and Equipment**
 - a. **Tampering with or misuse** of fire alarm systems or fire-fighting equipment.
 - b. **Intentionally or recklessly burning** or setting fire to or in any buildings or starting unauthorized fire on University property.
 10. **Academic Dishonesty**
Students are not to engage in any form of academic dishonesty including, but not limited to, plagiarism, alteration of records, substitution of another's work representing it as the student's own, and knowingly assisting another student in engaging in any such activity. For purposes of this section, plagiarism is defined as the knowing use, without appropriate approval, of published materials, expressions or works of another with intent to represent the materials as one's own.

11. Other University Regulations:

Violation of any other published or posted University regulations, including but not limited to:

- a. EMU policy manuals.
- b. Terms and conditions of the Residence Hall Contract.
- c. EMU published undergraduate and graduate catalogs.
- d. Rules and regulations specific to University buildings.

B. OFF-CAMPUS CONDUCT

Individual or group conduct described in the regulations in Part A which occurs off-campus may also result in disciplinary action by the University when:

1. such conduct has or tends to have a substantial adverse impact on the interest of the University or an individual within the University community, and
2. there is a showing to that effect to the satisfaction of a University hearing board to which the case is referred.

SECTION II. CONDUCT CODE FOR STUDENT ORGANIZATIONS

Recognized student organizations have considerable freedom to accomplish their goals. However, they must conform to the policies, regulations and procedures for student organizations and the Code of Conduct. Any group in violation of these standards is subject to disciplinary action. Original jurisdiction for conduct cases for all recognized student organizations is held by the Dean of Students Office.

A. UNIVERSITY-WIDE REGULATIONS

The following conduct, should it take place on University owned or controlled property or at a University sponsored or supervised event, may result in disciplinary action by the University, including separation from the University.

1. Non-Discrimination by Organizations

- a. Every student organization registered and approved by the University is expected to be free to select its membership upon the basis of individual merit. Any student organization selecting its membership involving race, religion, color, national origin, sex, age or handicap will be considered to be operating in conflict with the University policy.
- b. Exceptions to this policy include religious qualifications which may be required by organizations whose aims are primarily sectarian, and social fraternities and sororities that are permitted by federal and state law to discriminate on the basis of sex.

- c. Should a student organization be in conflict with the University policy in the selection of its members, the group will be asked to submit evidence that action has been or is being taken to remove such restrictive membership provision; such as a request for a waiver of the restriction from the national organization. A reasonable period of time as determined by the Dean of Students Office may be granted to remove the restrictive provisions. Continued restriction of membership by constitutional requirements or other binding enactment contrary to University policy will result in withdrawal of University registration of the student organization.

2. Property

- a. Theft of University property or property of a member of the University or visitor.
- b. Damage, destruction or defacement of University property or property of a member of the University or visitor.
- c. Wrongful appropriation of University property or property of a member of the University or visitor.
- d. Unauthorized possession of University property or property of a member of the University or visitor.

3. University Facilities

- a. Unauthorized use including entry to, occupation of, or blocking ingress or egress of University facilities such as but not limited to buildings, classrooms, hallways, entryways, conference rooms, and outside grounds as well as unauthorized use of vehicles, equipment, services or University name or logo (including University Computing Center).
- b. Misuse of University facilities, vehicles, equipment, services, or University name or logo including but not limited to use for purposes other than intended for or authorized.

4. Falsification of Records

- a. Furnishing false information to the University.
- b. Forgery, alteration or improper use of University documents, records or identification.

5. Disruptive Conduct

- a. Active participation in or instigation of disruption or obstruction of any University activity.
- b. Disturbance of or harassment of any member(s) of the University community or any person(s) on campus in an official capacity or visitor(s).

6. Physical Abuse

- a. Physical abuse or threat of physical abuse or unwarranted inflammatory provocation to physical abuse against any member of the University community or any person on University property or conduct which threatens or endangers the mental or physical health or safety of any such person.

- b. **Sexual Harassment.** Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment as defined and otherwise prohibited by state or federal statutes.
 - c. **In cases where the activity is performed by an individual member of a student organization,** the total organization may be held responsible when those members not directly involved participate in said activity by encouraging, witnessing or condoning the act in any manner.
7. **Hazing**
- a. **Eastern Michigan University students as individuals or members of registered student organizations are expressly forbidden from engaging in hazing.** Initiation into University organizations is permissible excluding any activities construed as hazing.
 - b. **Hazing shall be defined as the performing of an act or insisting that another, including the initiate, perform an act for initiation individually or with any student or other organization which may cause or create an unnecessary risk or cause mental or physical harm to any person or which is not deemed socially acceptable.** Such acts include but are not limited to: requiring an initiate to consume alcohol or any other substance, preventing an initiate from having at least six hours sleep in any 24-hour period, branding, paddling, causing excessive fatigue—mental or physical, expecting participation in any activity in which full members will not participate, engaging in acts which cause embarrassment, humiliation, discomfort, pain, fright or injury or which violate any federal, state or local statute or University policy.
 - c. **In cases where the activity is performed by an individual member of a student organization,** the total organization may be held responsible when those members not directly involved participate in said activity by encouraging, witnessing or condoning the act in any manner.
 - d. **Any individual and/or organization found guilty of hazing will be subject to a minimum penalty of suspension.**
8. **Other University Regulations.** Violation of any other posted or published University regulations, including, but not limited to:
- a. EMU policy manuals.
 - b. Terms and conditions of the Residence Hall Contract.
 - c. EMU published bulletins.
 - d. *The Eastern Echo*.
 - e. Rules and regulations specific to University buildings.
 - f. Campus Life Council regulations and guidelines for organizations.
 - g. Student Government monetary allocation guidelines.

B. OFF-CAMPUS CONDUCT

Conduct described in the regulations in Part A which occurs off-campus may also result in disciplinary action by the University under the same provisions as the individual Conduct Code.

- C. **NOTHING IN THE FOREGOING shall subject an organization to liability under the provisions of this code for the acts of individuals unless such acts are committed under the formal or informal sponsorship, authority, direction, or as a group action of the organization.**

SECTION III. JUDICIAL STRUCTURE FOR STUDENTS AND STUDENT ORGANIZATIONS

A. PROCEDURAL RIGHTS OF THE STUDENT(S)/STUDENT ORGANIZATION

1. The student(s)/student organization shall have the right to remain silent.
2. The student(s)/student organization shall have the right to a voluntary adviser of their choice. Such advisers shall be selected from the University community and may participate in the disciplinary proceedings. The student shall also be informed by the dean of students that assistance is available through Student Government's Student Defender's Union. The student shall be informed of the availability of such assistance prior to the discipline process when applicable. **When criminal prosecution is pending on charges stemming from the same incident, the student(s)/student organization shall have a right to engage an attorney, at their own expense, of their choice to be present at a University hearing. The attorney shall not represent the student(s)/student organization nor be a participant in the hearing but shall be permitted to consult with the student(s)/student organization at all stages of the proceedings.**
3. The student(s)/student organization shall be presented with a written statement of the charges against them prior to the commencement of the disciplinary process.
4. The student(s)/student organization shall be presented with a written list of their rights. Rights 1-4 shall extend to all judicial proceedings, all investigations conducted by the Dean of Students Office and before any statement is made to the Dean of Students Office.
5. The student(s)/student organization may confront their accuser and are guaranteed the right to cross-examine all those testifying against them.
6. The student(s)/student organization shall have the right to bring witnesses to testify in their defense. The University Judicial Board and the Judi-

cial Appeals Board shall have the authority to limit the number of witnesses by a two-thirds vote of those members present, in order to avoid dilatory tactics.

7. The student(s)/student organization shall have the right to an open or closed hearing at their discretion. A hearing shall be deemed to have been open if provision for 20 spectators was made in the hearing room and no person was excluded until the room's capacity was reached except for sequestration or if such person's behavior was disruptive of the atmosphere for the conduct of a fair hearing. A closed hearing means participants only; student(s)/student organization(s) charged, adviser(s), dean of students and/or designee(s), witnesses, members of the board.
8. The student(s)/student organization may submit to the dean of students, University Judicial Board or the Judicial Appeals Board, in writing, a supportive report of any individual or organization who chooses to intervene in their behalf.
9. The student(s)/student organization shall have the right to challenge for cause any member of the University Judicial Board or Judicial Appeals Board. Each body shall determine the validity of such challenges.
10. No member of the University Judicial Board or Judicial Appeals Board who is involved with the investigation of a case or is a party to the case shall sit on the Board while the case is being heard. Rights 5-10 shall extend to all cases before the University Judicial Board or Judicial Appeals Board.
11. With the assistance of the Dean of Students Office, the University Judicial Board and the Judicial Appeals Board must keep official records of each case which the student(s)/student organization may examine.

B. DEAN OF STUDENTS OFFICE

1. The dean of students shall have the power to investigate each student(s)/student organization disciplinary case.
2. After investigation, the dean of students will make one of the following decisions:
 - a. charge the student(s)/student organization with misconduct and assign a penalty;
 - b. charge the student(s)/student organization with misconduct and refer the case to the UJB for action;
 - c. refer the case to the UJB for review and action;
 - d. not charge the student(s)/student organization.
3. In all cases where a student(s)/student organization is charged, a written notice shall be prepared by the Dean of Students Office and served on the student(s)/student organization involved. It will satisfy this provision if such a notice is given to the student(s)/student organization's last known address registered

with the University. The notice shall include the following:

- a. a recitation of the facts which surround the violation giving, so far as possible, the date, time, and location of the behavior in question;
 - b. a recitation of the specific regulation violated;
 - c. any penalty assigned or other action taken;
 - d. the student(s)/student organization has 10 calendar days to appeal the finding in writing;
 - e. failure to appeal the decision within 10 calendar days shall result in the penalty taking effect.
4. When a case is taken to the University Judicial Board (or Judicial Appeals Board), the complaint should be submitted in writing to the hearing board by a representative from the Dean of Students Office or by an appointee of the Dean of Students Office.
 5. In case of a hearing before the University Judicial Board (or Judicial Appeals Board), the Dean of Students Office shall notify the student(s)/student organization involved of the date, time, and place of the hearing and/or pre-hearing conference. The date of the pre-hearing conference shall not be less than two days prior to the date of the hearing—except by mutual consent.

C. PRE-HEARING CONFERENCE

At least two days prior to any hearing by the University Judicial Board or hearing officer, the dean of students shall schedule a pre-hearing conference for any student(s)/student organization charged with conduct violations. Such conference shall be attended by:

1. the presiding officer of the University Judicial Board (or Judicial Appeals Board), or the hearing officer or a designee of one of these officers;
2. the dean of students or his/her designee and may be attended by:
 - a. any employee of the University who may be designated to represent the University;
 - b. the student(s)/student organization involved;
 - c. any member of the University community in good standing selected by the student(s)/student organization to serve as adviser or representative.

The purpose of such conference shall be to identify those issues and facts which will be presented at the hearing, to exchange information as to witnesses likely to be called, to answer procedural questions so far as possible, and to settle those matters which may be agreeably concluded. This conference will not determine questions of innocence or guilt or recommendation of penalty. The failure of the student(s)/student organization or their adviser or representative to appear shall in no way affect any procedural rights of the student(s)/student organization in subsequent disciplinary proceedings and such failure will not prohibit a hearing from being held.

D. THE UNIVERSITY JUDICIAL BOARD**1. Composition**

- a. **The University Judicial Board** shall consist of five enrolled students and two alternates, two full-time faculty members and one alternate, and two full-time members of the University community and one alternate (which includes current faculty, staff, employees, and students.)
- b. **No member** shall be on any probationary status and no member shall have any pending disciplinary action which may lead to a change of status.

2. Selection of Members

- a. **The student members** shall be appointed by the Student Senate as directed by their constitution and bylaws, with one student member from the Office of Campus Life.
- b. **The faculty members** shall be selected by the Faculty Council.
- c. **The president or his/her designee** shall appoint the members from the University community.

3. Term of Office

- a. **Members shall be appointed** for up to a two year period. They may be reappointed by the person or body who appointed them.
- b. **Members may be removed** from the board for poor attendance by a simple majority vote of the total board.

4. **The chief justice** shall be selected from within the body by a majority of the body.

E. JURISDICTION OF THE UNIVERSITY JUDICIAL BOARD

1. **The University Judicial Board** shall have original jurisdiction in all cases involving violations of University regulations.
2. **The University Judicial Board** shall exercise superintending control if there is probable cause to believe that elementary principles of fairness and justice are being or will be violated.

F. APPEALS TO THE UNIVERSITY JUDICIAL BOARD

All appeals to the University Judicial Board shall be governed by the following:

1. **Appeal may** be granted on any basis.
2. **Appeals shall be** made to the University Judicial Board in writing to the Dean of Students Office.
3. **The University Judicial Board** shall decide whether or not to hear the case by majority vote.
4. **All cases** shall be heard from the beginning.
5. **Upon motion** of the student(s)/student organization party, any case may be removed directly to the Judicial Appeals Board, which shall assume original jurisdiction.

G. PROCEDURE OF THE UNIVERSITY JUDICIAL BOARD

1. **Prior to any discipline hearing**, a pre-hearing conference will be held (see Item C., Pre-Hearing Conferences).

2. Quorum

A **quorum** shall exist with the presence of six members.

3. Disposition of Cases

- a. A **simple majority** of the board members present shall be required for any action taken.

- b. **Decision** of the University Judicial Board shall be in writing. The decision shall be based on the evidence presented. The decision shall state what rule was violated, the behavior constituting the violation and if known, the date, time, and place of the violation. Within 48 hours, the decision will be submitted in writing to the dean of students for mailing to the student(s)/student organization's last known address. Also a copy will be sent to the Judicial Appeals Board.

- c. **All decisions** by the University Judicial Board shall be final and shall be implemented after five working days, unless appealed or as provided under Section V, Item A. These decisions may be appealed by either party to the Judicial Appeals Board. The appeal must be in writing to the chairperson of the Judicial Appeals Board and delivered to the Dean of Students Office within five working days from the date of the decision.

- d. **The University Judicial Board** shall have authority to decide on penalties sanctioned by the University (see Section IV) and/or other action deemed appropriate.

H. JUDICIAL APPEALS BOARD**1. Composition**

- a. **The Judicial Appeals Board** shall consist of two enrolled students, two full-time faculty members and two full-time members of the University community.
- b. **No member** shall be on any probationary status, and no member shall have any pending disciplinary action which may lead to a change of status.

2. Selection of Members

- a. **The student members** shall be appointed by the Student Senate as directed by their constitution and by-laws.
- b. **The faculty members** shall be selected by their Faculty Council.
- c. **The president or his/her designee** shall appoint the members from the University community.

3. **Term of Office**
 - a. **Members shall serve** for up to a three year term. They may be reappointed by the person or body that appointed them.
 - b. **Members may be removed** from the board for poor attendance by a simple majority vote of the total board.

4. **Chairperson**
The chairperson of the Judicial Appeals Board shall be elected by a majority vote of the board.

I. JURISDICTION OF THE JUDICIAL APPEALS BOARD

1. **The Judicial Appeals Board** shall have appellate jurisdiction in all cases heard before the University Judicial Board and shall have original jurisdiction on the motion of the student(s)/student organization party in any case.
2. **In the event** the University Judicial Board shall fail to convene and decide any case within a reasonable time, the Judicial Appeals Board will have the power to assume jurisdiction.
3. **The Judicial Appeals Board** shall exercise superintending control over lower courts if there is probable cause to believe that elementary principles of fairness and justice are being violated or will be violated.

J. APPEALS TO THE JUDICIAL APPEALS BOARD

1. Student(s)/student organization **appeals or administrative appeals shall be made in writing** to the chairperson of the Judicial Appeals Board and submitted to the Dean of Students Office within five working days. In case of administrative appeal, the student(s)/student organization involved shall be notified at least five working days prior to their hearing before the Judicial Appeals Board.
2. **All cases on appeal** will be heard from the beginning.

K. PROCEDURE OF THE JUDICIAL APPEALS BOARD

1. **Prior** to any discipline hearing, a pre-hearing conference will be held (see Item C, Pre-Hearing Conferences).
2. **Quorum**
A quorum shall exist with the presence of any four members.
3. **Disposition of Cases**
 - a. **A simple majority** of those present shall be required for any action taken by this board.
 - b. **Decisions** of the Judicial Appeals Board shall be in writing. The decision shall be based on the evidence presented. The decision shall state

what rule was violated and if known, the date, time, and place of the violation.

- c. **Decisions** of the Judicial Appeals Board shall be submitted to the president for review with copies to Dean of Students Office, University Judicial Board, and the student(s)/student organization.
- d. **The president** will make the final decision by accepting, modifying, or rejecting the Judicial Appeals Board decision. If the decision is modified or rejected, then the president shall provide the student(s)/student organization and the Judicial Appeals Board with the reason(s) for the modification or rejection in writing.
- e. **Judicial Appeals Board and/or presidential decisions shall be in writing** with specific factual findings, citing rule(s) violated and setting forth discipline to be imposed, if any.
- f. **For cases** on which there has been no presidential action within five working days after submission, the Judicial Appeals Board decision is deemed to be approved.
- g. **All decisions approved and permitted to stand shall become effective immediately.**
- h. **Decisions shall be made in writing** and made available to the student(s)/student organization on the first day following Judicial Appeals Board action and following acceptance by the president or his/her designee. In cases permitted to stand without presidential action, the decision shall be made available to the student(s)/student organization no later than the sixth working day following the submission for review of the decision of the Judicial Appeals Board.
1. **Application for additional review** and modification of the Judicial Appeals Board and presidential decision may be made to the Board of Regents through the secretary of the Board of Regents. The Board of Regents, at its discretion, may agree to review the findings and decision of the president or the Judicial Appeals Board.

L. ALTERNATE HEARING PROCEDURE

1. In the event the University Judicial Board shall fail to convene and/or act within a reasonable time, the president shall be authorized to refer the case directly to the Judicial Appeals Board. In the event the Judicial Appeals Board shall fail to convene and/or act within a reasonable time, the president shall be authorized, after consultation with and approval by the Board of Regents, to appoint a hearing officer, not otherwise employed by the University, who shall conduct such hearings and perform the functions otherwise specified for the Judicial Appeals Board. The hearing officer shall submit his/her findings and recommendations to the president or

his/her designee in the same manner and within the time as required for the Judicial Appeals Board.

2. **Discipline by Administrative Action**

It is the policy and practice of the University to handle disciplinary cases administratively without involvement of the student(s)/student organization judicial systems when the judicial bodies are not in session.

SECTION IV. PENALTIES FOR MISCONDUCT

Discipline is intended to be corrective and educational as well as punitive. It is intended that the student(s)/student organization will learn from the disciplinary experience and develop a more mature attitude toward group living problems. The penalties which may be incurred include, but are not limited to, the following:

A. PENALTIES FOR STUDENTS

1. **Reprimand**

An official written statement of the University's disapproval of an individual or group action.

2. **Administrative Warning**

Will be issued to students for lesser offenses than those subject to administrative probation. A breach of conduct will be viewed not only as the breach of conduct itself but a violation of this warning, which may result in dismissal.

3. **Administrative Probation**

Defines the student's status to be conditional and may require exclusion from some programs and curricular or extra-curricular activities. In each case, the length and nature of the exclusions, if any, shall be determined according to the nature of the offense. Any breach of conduct while on administrative probation will be viewed not only as the breach of conduct itself, but a violation of probation which may result in dismissal.

4. **Suspension**

Suspension is an involuntary separation of the student from the University which may extend for one semester, until a specified date, and/or until a stated condition is met.

5. **Dismissal**

Dismissal, like suspension, involves separation from the University but it is for an indefinite period of time.

B. PENALTIES FOR STUDENT ORGANIZATIONS

1. **Reprimand**

An official written statement of the University's disapproval of an individual or group action.

2. **Administrative Warning**

Issued to student organizations for lesser offenses than those subject to administrative probation. Any

breach of conduct will be viewed not only as the breach of conduct itself, but a violation of this warning, which may result in suspension of said organization's status as a student organization. The misconduct may be reported to said organization's national office, if applicable.

3. **Administrative Probation**

Defines the student organization's status to be conditional and may require exclusion from campus activities, forfeiting of student monetary allocations, and withdrawal of Campus Life status for a minimum of one semester. Any breach of conduct while on administrative probation will be viewed not only as the breach of conduct itself, but a violation of probation which may result in suspension of said organization's status as a student organization.

4. **Suspension or Termination**

The involuntary withdrawal of status of the student organization from the University permanently, for a specified period of time and/or until a stated condition is met. During this period the University will not in any way recognize nor support the continued operation of said organization. The student organization must re-apply to the Office of Campus Life for renewed recognition following any period of suspension. The suspension action shall be reported to said organization's national office, if applicable. Action taken against a student organization may also result in separate action being taken against individual members of said group, when appropriate. In this case, the sections of the conduct code referring to student conduct will be applied.

SECTION V. PRESIDENTIAL RESPONSIBILITY

A. PRESIDENTIAL REVIEW

1. The authority to suspend or dismiss a student/student organization from the University for conduct in violation of University rules and regulations is vested in the president as the chief executive officer of the University or in his/her designated representative.
2. All disciplinary penalties assigned through the University judicial and review system which would result in suspension or dismissal of a student/student organization from the University shall be reviewed by the president or his/her designee.
3. The president or his/her designated representative may:
 - a. Accept the decision of the judicial review system, or
 - b. Reject the decision. If the decision rejected is:
 - (1) A dean of students decision, the rejection will constitute an automatic appeal to the University Judicial Board.

- (2) **A University Judicial Board decision**, the rejection will constitute an automatic appeal to the Judicial Appeals Board.
- (3) **A Judicial Appeals Board decision**, the procedure stated in Section III, Item K, 3 b, c, will be followed.

B. INTERIM SUSPENSION

The president, as chief executive officer of the University, is directly responsible to the Board of Regents for the enforcement of the University policies, rules, and regulations and is charged with the maintenance of that degree of order and safety necessary to the successful continuation of the University's lawful mission, and he/she is further charged with the authority to protect the members of the University community and University property.

Although such authority has always existed in the office of the president, it is herein made explicit that the president or his/her designated representative is authorized to suspend a student/student organization prior to a hearing and procedure through the University judicial process when in the judgment of the president or his/her designated representative, the misconduct of the student/student organization threatens or endangers University property, and that such student's/student organization's continued presence on campus creates a clear and present danger to the safety of students, faculty, administrators, and University property and/or which constitutes an interference with the maintenance of the University's educational processes and missions.

The student/student organization shall be **notified** of their suspension status orally, by written notice served on the student/student organization or written notice sent to the last address on record. Within five days after the notice, the student/student organization shall be permitted to present their side of the story. After the hearing, the president or his/her designee may lift suspension and direct that a hearing follow within eight days before the University Judicial Board, or maintain the student/student organization on suspension status and direct that a hearing follow within eight days before the University Judicial Board.

The above provisions concerning judicial power are the official policy of the University, subject to such specific amendments as shall hereafter be made and subject to those exceptions to these procedures implicit in the emergency powers of the president. Nothing in the above shall be construed as affecting the standards of conduct or rules of behavior as established by the regents.

All publications of the University which contain rules and procedures other than the above which describes the judicial structure or the procedures of student/student organization courts, Greek courts, or residence hall courts

shall not be construed as controlling those courts, but rather shall be merely descriptive of the system and procedures which the student/student organizations have themselves enacted as controlling their institutions.

C. EMERGENCY POWERS OF THE PRESIDENT

When faced with mass disruptions, activity of a violent and destructive nature, or other dangerous violations of University rules, the president may take note in a general statement of the seriousness of the threat to the University. As chief executive officer of the University, the president is charged with the maintenance of that degree of order necessary to the successful continuation of the University's lawful mission. Such responsibility carries with it the necessity for a certain degree of authority. Such authority has always existed in the office of the president. It is herein made explicit but to the extent that the courts of the land may deem such authority to be inherent or implicit, it is not limited.

The president, after consultation with and approval of the Board of Regents may:

1. **Impose and have enforced** a curfew on all portions of the campus of the University.
2. **Curtail** or suspend services.
3. **Close** the University or portions of the University entirely for the period of emergency.
4. **Suspend** students/student organizations and forbid their presence on campus if they have been sufficiently identified to him/her as participants in activities violative of University policy leading to the conditions described above. Suspension shall continue for the period of emergency.
5. **Appoint** a hearing board and an ad hoc or extraordinary basis to make a recommendation as to whether individual interim suspension shall be continued. Such a hearing board shall convene and make its recommendations within 10 days from the effective date of the interim suspension.

In making more explicit the authority of the president to take necessary actions in the interests of the University, the Board of Regents in no way restricts its own powers and prerogatives to carry out its obligations and duties as imposed by the constitution and laws of the state of Michigan.

GRADE GRIEVANCE PROCEDURE

THE GRADE GRIEVANCE PROCEDURE provides each student with the opportunity to appeal formally the final grade in a course because he or she believes that the grade has been awarded capriciously or unfairly. This procedure is not intended to handle disputes which may arise about the grading of individual exams or assignments during the semester. When such disputes arise, the student should contact the instructor immediately, rather than waiting until the end of the semester. Each Grade Grievance submitted according to this procedure must be an individual action by an individual student, and class action grievances by one student on behalf of several students or an entire class are not permitted.

STEP I - INSTRUCTOR AND STUDENT (INFORMAL)

If a student wishes to appeal a final grade, the student must contact the instructor within **FIVE (5) WORKING DAYS** after the start of the next semester; i.e., the semester following the one in which the disputed grade was given (see general notes for the spring-summer policy). If the instructor is teaching on campus the next semester, but is temporarily unavailable or simply cannot be reached during this five-day period, then the student should deliver a written request for an appointment with him/her, stating the reason, to the department head no later than the final day of the five (5) day period. With the aid of the department head in scheduling an appointment, the instructor and the student must then meet as soon as possible and discuss the disputed grade privately. Whenever possible, conflicts over grades should be resolved informally between the instructor and the student as a result of this STEP I discussion.

If the instructor has left the University permanently, or is not available for a period of 60 days or more (e.g., if the instructor is away on sabbatical leave, medical leave, or is in his/her off semester on a Plan C appointment), then the department head shall act in his/her behalf and make a decision either in support of or against the grievance. In making this decision, the department head shall review all available grade records, discuss the matter with the student, and with the written consent of the student, request and evaluate a written statement submitted within 10 working days by the instructor concerning the disputed grade. The department head cannot act in this manner on behalf of the instructor during the spring-summer period simply because the instructor is not teaching during either the spring or summer session, unless the disputed grade affects the student's plans to graduate either in August or December of that year.

STEP II - DEPARTMENT GRADE GRIEVANCE COMMITTEE (FORMAL)

If the grade dispute is not resolved in Step I to the student's satisfaction and he or she still believes that the grievance has merit based on the facts of the case, the student has the right to file a formal written grievance to the department head who will forward it immediately to the Department Grade Grievance Committee. Guidelines for filing a formal grievance are as follows:

1. A grievance must be based on evidence that the instructor has been capricious and/or unfair in awarding a grade. The written grievance must describe specifically the perceived capricious or unfair action of the instructor. The student should also present all other evidence or documentation in support of his or her allegations. Disagreement with an instructor's judgement in and of itself is not a basis for a grievance, nor is disagreement with an instructor's standards, if such standards have been described in advance for the class, and have been applied fairly to all students in the class.
2. A grievance must be filed within **FIFTEEN (15) WORKING DAYS** after the start of the next semester following the one in which the disputed grade was given.

Within **TEN (10) WORKING DAYS** after receipt of the written grievance, the department head must schedule a hearing before the Department Grade Grievance Committee. The department head cannot simply make a personal judgement that the grievance is without merit, and thus refuse to give it to the Department Grade Grievance Committee. However, after scheduling the hearing, the department head may request a closed, three-person meeting in his/her office with just the instructor and the student, to discuss informally the disputed grade one final time. If either the instructor or the student refuses to attend such a meeting, the department head cannot require his/her attendance, and the grievance hearing is then held as previously scheduled. If the closed meeting is held, the department head shall act only as a facilitator or mediator. His/her role is restricted solely to promoting further discussion, not to imposing his/her judgement and/or making a decision in the case. If the dispute is resolved in this meeting, the written grievance shall be withdrawn and the scheduled hearing canceled. If the dispute is not resolved, the grievance hearing is then held as previously scheduled. In such cases, the department head shall not communicate his/her opinions/judgments regarding the grievance and/or the discussions in the closed meeting to the members of the Department Grade Grievance Committee.

The Department Grade Grievance Committee shall be composed of three (3) faculty members and two (2) students, selected by appropriate departmental procedures. The student grievant, however, may request in advance in writing that the two (2) students be excused and that his or her grievance be heard only by the three

(3) faculty members. The committee shall conduct a hearing according to the following guidelines:

1. a detailed record shall be kept of the hearing, preferably a taped sound recording;
2. both the student and instructor shall be permitted an adviser—advisers must be members of the University community, i.e., students, or full-time faculty or staff members;
3. the hearing shall be open unless the student or instructor requests a closed hearing;
4. both the student and the instructor may call witnesses, and the student, instructor, adviser(s), and committee members all have the right to question any witnesses that are called; and
5. the deliberations of the committee shall be in executive session.

Within **FIVE (5) WORKING DAYS** of the date of the hearing, the Department Grade Grievance Committee shall present its decision/recommendations in writing to the department head for immediate distribution to the student and the instructor. Either the student or the instructor may appeal the decision/recommendations of the Department Grade Grievance Committee to the University Grade Grievance Committee, under the conditions listed below. This appeal must be filed **within FIVE (5) WORKING DAYS** of receipt of that decision.

STEP III - UNIVERSITY GRADE GRIEVANCE COMMITTEE (APPEAL)

Either the instructor or the student grievant may submit a written appeal of the prior decision at STEP II by the Department Grievance Committee **within FIVE (5) WORKING DAYS** of written receipt of that decision, if one of the following conditions is met:

1. there was at least one dissenting vote at the STEP II level; or
2. a new evidence or new witnesses not previously considered or heard at STEP II become available.

In the absence of (1) or (2) above, simple disagreement with the decision rendered at STEP II is not a sufficient basis for an appeal. In other words, there is no automatic right of appeal in every case requiring that the University Grade Grievance Committee reconsider the entire grievance case. If the appeal is based on new evidence or new witnesses, the written appeal statement must explain precisely how this evidence or testimony relates directly to the alleged unfair or capricious awarding of the disputed grade. The appeal shall be submitted to the associate vice president for academic affairs, with a copy to the dean of the appropriate college.

The University Grade Grievance Committee shall be chaired by the associate vice provost: budget, personnel and operations, and shall have the following additional members: the dean of the involved college or his/her designee; two (2) faculty members, one of whom is from the involved college, but not from the department in which the grievance originated; and one (1) student,

appointed by Student Government. The two faculty members shall be selected by the associate provost: budget, personnel and operations from an available pool of nominees representing all colleges.

The University Grade Grievance Committee shall review all written documents which were available to the Department Grade Grievance Committee, the tape recording of the STEP II hearing, and the final report and decision of the STEP II Committee. The University Grade Grievance Committee may reconvene the participants in the STEP II hearing to answer questions, if desired.

Within **TWENTY (20) WORKING DAYS** of the receipt of the appeal, the University Grade Grievance Committee shall issue a written STEP III decision to both the instructor and the student. This decision shall be final; no further appeal is possible.

RECORDS

When the Grade Grievance Procedure results in an instructor's grade being changed without his or her agreement, then all University records containing that grade in which the name of the instructor appears shall be identified by an asterisk (*). On these records, the asterisk will be footnoted with the following statement: "This grade is the result of a appeal procedure." On those records in which the instructor's name does not appear, the grade will not be asterisked, nor will there be any other indication that the original grade was changed.

GENERAL NOTES

1. The time limits/deadlines for submitting grievances/appeals, holding meetings, and making decisions are to be followed by all parties. However, extensions of the time limits not to exceed five working days may be requested in writing by any of the involved parties. Such requests must originate prior to the expiration of the stated time limit. The dean of the involved college will make the decision to approve or to deny each request for a time limit extension at STEP I or STEP II. Decisions regarding STEP III time limit extensions will be made by the provost. Working days are defined as Monday through Friday while classes are in session.
2. Each academic department shall select a Department Grade Grievance Committee at the beginning of the academic year in September. This committee will hear all grade grievances during the next 12 months, rather than selecting a different committee for each grade grievance. Substitute members shall be selected to replace any committee member who is himself/herself involved in a grade grievance. Also, substitute members shall be selected to replace any committee member (faculty or student) who is unavailable for an extended period of time (e.g., spring/summer).
3. Each college shall select two (2) faculty members plus one alternate who are available over a 12-

month period for assignment to the University Grade Grievance Committee. These selections shall be made by the appropriate college-level faculty advisory council/committee at the beginning of the academic year in September. Unlike the Department Grade Grievance Committee, this STEP III University Grade Grievance Committee may of necessity have a different membership for each grievance.

4. **Grievances relating to grades awarded for the winter semester ending in April shall normally be pursued the next fall, measuring all stated deadlines with respect to the start of the fall semester in September. However, if the instructor is teaching on campus during the spring or summer session and the student is enrolled on campus during that same session, then with their mutual agreement, the grievance can be pursued during the spring or summer. However, should either the instructor or the student prefer to wait, then action of the grievance will be postponed until the fall semester. The only exception in which the grievance shall be pursued during the spring or summer session without the consent of an instructor who is teaching on campus, is for any case in which the disputed grade affects the student's plan to graduate either in August or December of that year. In such cases, if the instructor is unwilling to participate, the department head may act on his/her behalf.**
5. **Throughout this procedure, the title *department head* shall be interpreted to include *program directors* or *program coordinators* for appropriate academic units in which there is no administrator with the title department head.**
6. **Students are discouraged from seeking counsel of *off the record* opinions from deans or other senior administrators (particularly the associate provost: budget, personnel and operations, who may become involved later if there is a STEP III appeal) while action is still pending on a grade grievance at the department level.**

STUDENT ADMINISTRATIVE GRIEVANCE PROCEDURE

STUDENTS MAY FILE A GRIEVANCE over a dispute arising from allegations of improper or incorrect interpretation or application of University policy, including any alleged discrimination in the application of such policy based upon race, religion, sex, age, national origin or any other illegal discrimination as established by the state or federal regulation or law. Traditionally, those matters have been handled in the following manner:

STEP I. ADMINISTRATOR AND STUDENT (INFORMAL)

Any student who is considering filing a grievance must first discuss the problem with the administrator or staff member whose responsibility it is to enforce the regulation or policy.

STEP II. DEPARTMENT SUPERVISOR (FORMAL)

If unable to resolve the dispute at this level, the student shall, if he or she wishes, carry the grievance forward by first reducing the grievance to writing, stating the nature of the grievance and what policy allegedly has been violated or incorrectly interpreted, and the date of the alleged violation or misinterpretation. This written grievance shall be presented to the head of the department, or immediate supervisor of the staff member or administrator enforcing the policy. The University shall not be expected to consider any grievance that is not submitted in writing to the department head or supervisor within 21 calendar days of the alleged violation. Upon receipt of the written grievance, the supervisor or department head shall meet with the student (normally within one week of the receipt of the written grievance) to attempt to resolve the grievance and following such a meeting, promptly provide a written answer. No such written answer may be contrary to University policy.

STEP III. DIVISION VICE PRESIDENT

If the grievance is not resolved at Step II, then it shall be forwarded to the vice president in charge of the division in which the grievance has been filed. Usually within a week of receipt of the grievance, the vice president shall meet with the student filing the grievance and discuss the grievance. Following the discussion, the vice president shall render a decision in writing to the student.

STEP IV. PRESIDENTIAL APPEAL

If the grievance is not resolved in Step III, the student may appeal to the president of the University. As chief executive officer of the University, the president will make the final decision and he or she may consult with the Executive Council prior to making this decision. Also, the president, if he or she chooses, may elect to conduct an informal hearing with the student.

The Student Administrative Grievance Procedure is to be used for administrative decisions only and is not to conflict with established procedures in the areas of student employment, student discipline, academic affairs, and other published University student grievance procedures.

STUDENT GOVERNMENT provides services for students seeking to file a student grievance or encountering any other problems. Information must be submitted in writing to its office in Goodison Hall.

CORRESPONDENCE DIRECTORY

Please address specific inquiries to the following offices:

DEAN OF THE COLLEGE OF ARTS AND SCIENCES 411 Pray-Harrold Building	487-4344	CAMPUS LIFE, OFFICE OF 221 Goodison Hall	487-3045
DEAN OF THE COLLEGE OF BUSINESS 473 Gary M. Owen Building	487-4140	Student Government; Residence Hall Association; University Judicial Board; <i>Eastern Echo</i> ; <i>Aurora</i>	
DEAN OF THE COLLEGE OF EDUCATION 117 Boone Hall	487-1414	CAREER SERVICES CENTER Fourth Floor, Goodison Hall	487-0400
DEAN OF THE COLLEGE OF HEALTH AND HUMAN SERVICES 212 King Hall	487-0077	Teaching vacancies; registration of applicants for teaching, business and industrial positions; opportunities for earning a portion of University expenses.	
DEAN OF THE COLLEGE OF TECHNOLOGY 150 Sill Hall	487-0354	COUNSELING SERVICES Snow Health Center	487-1118
DEAN OF THE GRADUATE SCHOOL Starkweather Hall	487-0042	EQUITY PROGRAMS, OFFICE OF 204 Pierce Hall	487-2133
DEAN, DIVISION OF CONTINUING EDUCATION 321 Goodison Hall	487-0407	Support services to African-American, Hispanic American, Native American and Asian American students. The programs and services provided range from College Days to doctoral scholarships. Information; counseling; tutoring; assistance with grievance procedures for minority students.	
Off-campus and in-service courses; speakers for special occasions; adult education; consultation services to schools		FINANCIAL AID OFFICE 403 Pierce Hall	487-0455
DEAN OF STUDENTS 205 Goodison Hall	487-3118	Loans and grants-in-aid; Graduate Assistantships funded by College Work-Study	
General welfare of individual students		FOREIGN STUDENT AFFAIRS 208-209 Goodison Hall	487-3116
REGISTRAR'S OFFICE - ACADEMIC RECORDS AND CERTIFICATION Third Floor, Pierce Hall	487-4111	GRADUATE SCHOOL OFFICE Starkweather Hall	
Certification requirements and transcripts		Ronald E. Goldenberg, Dean	487-0042
ACADEMIC PROGRAMS ABROAD 330 Goodison Hall	487-2424	Hector Garza, Associate Dean	487-0042
ADMISSIONS OFFICE 401 Pierce Hall	487-3060	D. C. Jackson, (Interim) Assistant Dean	487-0048
AFFIRMATIVE ACTION OFFICE 310 King Hall	487-0016	Graduate Applications	487-3060
ALUMNI RELATIONS OFFICE 15 Welch Hall	487-0250	International Student Application	487-3060
ATHLETICS OFFICE 200 Bowen Field House	487-0351	Graduate School Admissions	487-3400
Athletic information and tickets		Graduate Records	487-0093
		Graduate Advising	
		See pages 247-249 for coordinators of advising listed by program areas.	
		HOUSING OFFICE Basement Dining Commons #1	487-1300
		LEARNING RESOURCES AND TECHNOLOGIES (Library)	487-0020
		McKENNY BOOKSTORE McKenny Union Basement	487-1000
		Textbooks; educational materials; class rings	
		PARKING CONTROL Parking Structure	487-3450

PUBLIC SAFETY DEPARTMENT	
Parking Structure	487-1222
Police and fire	
REGISTRATION OFFICE	
303 Pierce Hall	487-2300
Registration of students for on/off campus classes	
SNOW HEALTH CENTER	487-1122
Physician and nursing services; professional counseling; TB testing	
STUDENT ACCOUNTING	
203 Pierce Hall	487-3335
University fees	
UNIVERSITY CHILDREN'S INSTITUTE	
Snow Health Center	487-1126
Child care for preschool children of students; summer and evening program through age 12	
VETERANS AFFAIRS OFFICE	
201-202 Goodison Hall	487-3119
Veterans affairs and education benefits	

MAJOR BUILDINGS AND OTHER FACILITIES

FREDERICK M. ALEXANDER MUSIC BUILDING

This building, completed in 1980, houses the Department of Music; three large rehearsal rooms (band, choir, and orchestra), a 150-seat recital hall, an organ/teaching recital facility, and 64 individual practice rooms. The latest in acoustical and sound isolation techniques is provided for music instruction.

The Department of Foreign Languages and Bilingual Studies is also housed in the Alexander Music Building.

BUSINESS AND FINANCE BUILDING

The Business and Finance Building houses Accounting, Purchasing, and Payroll.

RICHARD G. BOONE HALL

Built in 1914 as an administration building, Boone Hall now houses the College of Education offices and classrooms. It was named for the ninth president of the Normal College (1893-1899).

WILBUR P. BOWEN FIELD HOUSE

The field house was completed in December 1955, and was named for the founder and long-time head of the Department of Physical Education. The field house floor is hard surfaced and the eight-laps-to-the-mile track is surfaced with Grasstex, providing one of the finest indoor tracks found anywhere. This facility also has a basketball court, three tennis courts, eight badminton, and three volleyball courts in the infield. The current seating capacity for basketball is 5,500.

WALTER O. BRIGGS HALL

Originally constructed as the first unit of a field house, Briggs Hall was first converted to classroom use then later converted to house the offices of Registration, Student Accounting, and Cashiers for the payment of tuition and room and board. Today it is once again in use as a classroom facility for the Art Department.

UNIVERSITY LIBRARY

The University Library, which opened at the beginning of the spring semester 1967, provides more than five times the floor space and double the book capacity of the old Mark Jefferson Library. The seating capacity is 1,800, and there are more than 800,000 items available for use, including books, bound periodicals, documents, and microforms. Most materials are on open shelves and are readily available for home or library use when not on reserve. The Media Services Center complements the library collection with non-book materials and a listening center.

The Instructional Support Center is also a part of the University Library.

R. CLYDE FORD HALL

The former Mark Jefferson Library, renamed R. Clyde Ford Hall, has been remodeled to provide office and classroom space for the Art Department as well as two television studios. The building originally was opened in 1929 and was remodeled in 1967 and 1982.

BERTHA M. GOODISON HALL

This building currently houses the offices of African-American Studies, Campus Life, Career Services, Dean of Student Services, Division of Continuing Education, Faculty Council, Foreign Student Affairs, Humanities Program, International Studies, Minority Affairs, Special Student Services, Student Government, student organizations, Student Publications, Upward Bound, Veterans Affairs, and the Women's Commission.

MARY GODDARD HALL

This building, erected in 1955, is primarily a residence hall but, in addition, houses the University Honors Program, classroom space for industrial education, and the Office of Research Development.

J. M. HOVER LABORATORY

This building, completed in 1941, houses laboratories of the Department of Biology, a greenhouse and plant laboratory, and the Biology-Career Center.

MARK JEFFERSON HALL

This building, completed in the fall of 1970, houses the Departments of Chemistry, Biology, and Psychology. This building has completely equipped modern laboratories for these departments and greatly enhances the preparation of students in these fields of study.

JULIA ANN KING HALL

Renovated in 1971, Julia Ann King Hall houses the Nursing Education Department, the dean of the College of Health and Human Services, the Associated Health Professions Department and the Social Work Department. Other offices are those of the Institute for the Study of Children and Families, the National Center of Teaching and Learning, Affirmative Action, the University radio station WEMU-FM, and Human Resources, including Personnel, Staff Benefits, Compensation, Staff and Union Relations, and Staff Training and Development.

CHARLES MCKENNY HALL

Charles McKenny Hall, named after a former president of the University, is the student union and social center of the University.

The facility was completely remodeled in 1964-65 and a large addition was added, doubling its original size. It now houses cafeteria and dining services, a snack bar, the University bookstore, a bowling alley, a billiard room, offices for student organizations, lounges, meeting rooms and a large ballroom.

LLOYD W. OLDS STUDENT RECREATION CENTER

Eastern Michigan University's new Olds Student Recreation Center is designed to provide students with the best in modern recreational facilities for year-round use. Students were involved in planning the facility from the very beginning, and a committee, with a majority of students, manages and schedules the building to ensure student needs are met.

The new facility contains 15 racquetball/handball courts, four basketball courts, two multipurpose gymnasiums, a weight room, a slimnastics room and an exercise track. Other features include a 50-meter pool which is one of the largest indoor pools in Michigan and has 7-, 8- and 10-meter diving platforms; and a seating capacity of more than 800. The facility also features a pro shop, a concession stand, balcony, lounges and an electronic games area. Also, the Warner pool has been refurbished to be used solely for recreational purposes and features a sauna and a walk-in whirlpool. Fees are assessed only to non-student users of the facility.

GARY M. OWEN COLLEGE OF BUSINESS BUILDING

Located on Michigan Avenue in downtown Ypsilanti, this building houses the College of Business and provides classrooms and offices for the departments of Accounting, Finance, Management, Marketing, and Operations Research and Information Systems. The building also contains a library, computer laboratories, and facilities for other programs operated by the College of Business. The building is named for Gary M. Owen, who was Speaker of the Michigan House of Representatives at the time of the building's construction.

PAINT RESEARCH LABORATORY

Completed in 1987, this building is utilized by the Paint Research Association for scientific paint research activity.

PARKING STRUCTURE

A structure to house 800 cars has been built west of Bowen Field House. The structure has direct access to Washtenaw off Oakwood Avenue. It also houses the University Public Safety Department.

FREDERIC H. PEASE AUDITORIUM

This building, completed in 1914 and named for Frederic H. Pease, longtime head of the Conservatory of Music, is the center for many University and civic activities as well as music events; the auditorium seats 1,700. In the auditorium is the \$100,000 Frederick Alexander Memorial Organ. Currently, funds are being sought to renovate the auditorium.

JOHN D. PIERCE HALL

Completed in 1948, this building replaced the original building of the University, which for a century honored the name of John D. Pierce, first superintendent of

public instruction in the state of Michigan. Pierce Hall houses the Admissions and Financial Aid Offices, Student Accounting, Cashier's Office, Registration, Records, and the Office of the Registrar.

PRAY-HARROLD CLASSROOM BUILDING

The Pray-Harrold Classroom Building houses the departments of English Language and Literature, History and Philosophy, Mathematics, Computer Science, areas of Teacher Education, and the Administrative Computer Center. Located north of the University Library, the building was completed in June 1969.

DANIEL L. QUIRK, JR. DRAMATIC ARTS BUILDING

Opened in 1959, this modern drama facility was added to in 1966 and renovated in 1985. The building now includes the handicapped-accessible Quirk Theatre seating approximately 400, the more intimate Sponberg Theatre seating 200, up-to-date scene and costume shops, radio facilities, classrooms and offices of the Department of Communication and Theatre Arts.

HORACE H. RACKHAM BUILDING

This building houses the Department of Special Education. It contains a new speech and hearing clinic, a diagnostic prescriptive clinic for learning-disabled children and their families, a pool and other facilities for physical therapy and the child development laboratory of the Department of Human, Environmental and Consumer Resources. It was constructed in 1938.

ROOSEVELT HALL

The former Roosevelt Laboratory School has been remodeled to house the departments of Human, Environmental and Consumer Resources, and Military Science.

SCULPTURE STUDIO

Located on the north campus is the sculpture studio for the Art Department.

WILLIAM H. SHERZER HALL

This building, erected in 1903 and named for the professor of geology and head of the Department of Natural Science (1892-1932), houses classrooms, art studios, faculty offices for the Art Department, and the University's observatory.

J.M.B. SILL BUILDING

J.M.B. Sill Building houses classrooms and offices for the College of Technology, the departments of Industrial Technology, Business and Industrial Education, and Interdisciplinary Technology. Also, large lecture halls used for classes in communication and theatre arts, social work, political science, and special education are housed in this building. The Art Department retains offices and facilities for its ceramics, jewelry, and multimedia courses on the lower floor.

GLENADINE C. SNOW HEALTH CENTER

This modern health service facility includes a pharmacy, medical laboratory, X-ray department, physicians' clinical offices, nurses' consulting rooms, and examination and treatment areas. In addition, this building houses the Counseling Center, and the Children's Institute.

MARY ANN STARKWEATHER HALL

This building, the gift of Mrs. Mary Ann Starkweather, was erected in 1897 and was remodeled and modernized in 1961. Starkweather Hall is the home of The Graduate School.

EDWIN A. STRONG PHYSICAL SCIENCE BUILDING

This building, opened in fall 1957, houses the departments of Physics and Astronomy, and Geography and Geology. The building is named after Edwin A. Strong, head of the Physical Science Department from 1885-1916.

JOSEPH E. WARNER PHYSICAL EDUCATION BUILDING

This facility, completed in 1964 and immediately adjacent to Bowen Field House, houses the Department of Health, Physical Education, Recreation and Dance. The building includes gymnasiums, classrooms, offices, special-purpose rooms, a recreational swimming pool which features a sauna and a walk-in whirlpool, and the Human Performance Laboratory.

ANDONIJAH S. WELCH HALL

The first section of Welch Hall was erected in 1896. It is named for Andonijah S. Welch, first head of the University and originally used as the University laboratory school. Welch Hall now houses the executive/administrative offices of the University and the Board of Regents.

CAMPUSES AND OUTDOOR FACILITIES

MAIN CAMPUS

The main campus encompasses historic and new academic buildings, residence halls, and physical education facilities, including Bowen Field House and Olds Student Recreation Center. On the main campus there are 17 tennis courts, eight of which are lighted, five large play fields suitable for field hockey, football, practice baseball diamonds, and women's sports. Recently constructed is the equivalent of four softball diamonds or two football fields—all under light for night-time use. They are used by the physical education classes, the intramural program, and for general recreational purposes. The main campus consists of 217 acres.

WEST CAMPUS

An area of 142 acres was purchased in 1965 and an additional 142 acres purchased in 1967 allowed expan-

sion of the academic campus into the site of athletic areas on the main campus. The new site contains a baseball stadium, football stadium, all-weather running track, six intramural fields, two practice football fields, apartment complexes, and paved parking. There is also room for future expansion and growth of similar facilities.

KRESGE ENVIRONMENTAL EDUCATION CENTER AT FISH LAKE

This property, purchased in 1965, is primarily a center for experimentation in and dissemination of environmental education programs. It also is a site for resident field study in various disciplines of biology and other environmentally focused subjects. The center is located in Mayfield Township of Lapeer County and has a wide variety of topography and habitat. A natural lake, a man-made impoundment and a bog offer diversity for aquatic studies. The site is 241 acres in area, and is surrounded on three sides by 4,000 acres of the Lapeer State Game Area. Present facilities include a dormitory that houses 64, a dining commons that can feed 200, a remodeled one-room school house and four modular units that house the center office and provide staff housing, and an additional lab-classroom.

CLARENCE M. LOESSELL FIELD LABORATORY

Located west of campus, this tract of about 21 acres was dedicated in 1958 to the memory of Clarence M. Loessel, longtime head of the Natural Science Department (present Biology Department). It includes a considerable variety of habitat and wildlife and is used in the teaching and research program of the department.

HURON GOLF CLUB

The Huron Golf Club, a par 72 course, is situated on 132 acres surrounding the Corporate Education Center and the Radisson Hotel. There is a driving range and clubhouse. The clubhouse has a grill and beverage area, spacious men's and women's locker-rooms and a large separate banquet facility.

RONALD E. OESTRIKE STADIUM

The stadium replaced Briggs Field (now a parking lot adjacent to McKenny Union) and has a grandstand seating 2,500 people under cover. First used in spring 1968, it is among the finest baseball facilities in intercollegiate competition.

RYNEARSON STADIUM

This facility was ready for the 1969 fall football season and contains 12,500 permanent seats on the west side of the field and temporary bleachers that expand the seating on the east side of the field to 22,000. Also included are complete press box and locker room facilities.

GRADUATE FACULTY

GRADUATE FACULTY STATUS:

- Full (F)
- Provisional Full (PF)
- Associate (A)
- Provisional Associate (PA)

ACCOUNTING

- Cianciolo, S. Thomas A.** (1985) Professor; B.S., M.B.A., University of Detroit; Ph.D., Michigan State; C.P.A., State of Michigan (F)
- Clark, George** (1973) Associate Professor; B.B.A., M.B.A., J.D., The University of Michigan; L.L.M., Wayne State University; C.P.A., State of Michigan (F)
- Devine, Elton A.** (1976) Professor; Associate Dean, College of Business; B.S., M.B.A., University of Southern Mississippi; Ph.D., Louisiana State University (F)
- Keros, John W.** (1965) Associate Professor; B.B.A., M.B.A., The University of Michigan; C.P.A., State of Indiana (F)
- Khan, Zafar U.** (1989) Assistant Professor; B.Sc., Aligarh University, India; M.S., Indian Institute of Technology, India; M.B.A. University of North Carolina; Ph.D., Louisiana State University; C.I.A. (F)
- Okopny, D. Robert** (1988) Associate Professor; B.S., Southern Illinois University; M.B.A., Eastern Michigan University; M.S., Ph.D., Texas A&M University; C.M.A., C.I.A. (A)
- Ravenscroft, Susan P.** (1988) Assistant Professor; B.A., Wayne State University; M.B.A., University of Detroit; Ph.D., Michigan State University; C.P.A., State of Michigan (A)
- Pathak, Chandra P.** (1981) Professor; B.Com., Banaras Hindu University; M.Com., University of Allahabad; Ph.D., University of Tennessee; C.P.A., State of West Virginia (F)
- Senteney, David L.** (1989) Assistant Professor; B.S., Eastern Illinois; M.S.A., Ph.D., University of Illinois, Urbana-Champaign (F)
- Sharifi, Mohsen** (1981) Professor, Department Head; B.Com., Tehran Business College; M.S.A., M.B.A., Ph.D., Louisiana State University; C.M.A. (F)
- Snyir, Andrew G.** (1984) Associate Professor; B.S.E.E., M.S.I.A., Ph.D., Purdue University (A)

AFRICAN-AMERICAN STUDIES

- Semmes, Clovis E.** (1988) Associate Professor; B.A., Northwestern University; M.A., University of Illinois-Chicago; Ph.D., Northwestern University (F)

ART

- Anderson, Marvin C.** (1963) Professor; B.F.A., Wayne State University; M.F.A., Cranbrook Academy of Art (F)
- Avedon, Barry** (1966) Professor; B.F.A., M.F.A., Rochester Institute of Technology (F)
- Beginin, Igor** (1968) Professor; A.B., M.A., Wayne State University (F)
- Bocklage, Christopher J.** (1985) Associate Professor; B.A., M.F.A., Southern Illinois University, Edwardsville (F)
- Chew, Robert E.** (1968) Professor; B.F.A., Maryland Institute; M.F.A., University of Illinois (F)
- Fairfield, Richard T.** (1963) Professor; B.F.A., Bradley University; M.F.A., University of Illinois (F)
- Field, Jan M.** (1965) Professor; B.F.A., M.F.A., School of the Art Institute of Chicago (F)
- Freeman, Lawrence L.** (1969) Professor; B.A., Mankato State College; M.F.A., University of Oregon (F)
- Hunter, Fredrick C.** (1967) Professor; B.S., Wisconsin State University; M.F.A., University of Wisconsin (F)
- Iden, Sheldon S.** (1968) Professor; B.F.A., Wayne State University; M.F.A., Cranbrook Academy of Art (F)
- Kisor, Douglas R.** (1984) Associate Professor; B.F.A., Michigan State University; M.F.A., Western Michigan University (F)
- Loree, John P.** (1962) Professor; B.S., Fordham University; M.F.A., Alfred University (F)
- Mason, James** (1990) Assistant Professor; B.F.A., University of Washington, Seattle; M.F.A., Cranbrook Academy of Art (PA)
- Myers, Julia** (1990) Assistant Professor; B.A., Southern Methodist University; M.A., University of Pittsburgh; Ph.D., University of Maryland (F)
- Otto, Gretchen** (1987) Assistant Professor; B.A., Seton Hill College; M.F.A., Cranbrook Academy of Design (A)
- Pappas, John N.** (1960) Professor; B.F.A., M.A., Wayne State University (F)
- Rubinfeld, Richard L.** (1986) Associate Professor; B.A., Hofstra University; M.A., Ph.D., Ohio State University (A)
- Sandall, James** (1977) Professor; B.F.A., University of Nebraska; M.F.A., Arizona State University (F)
- Schwartz, Ellen C.** (1977) Professor; B.A., Brandeis University; M.A., Institute of Fine Arts, New York; Ph.D., New York University (F)
- Sharp, David W.** (1962) Professor; B.A., Arizona State University; M.F.A., State University of Iowa (F)
- Stephenson, Susanne G.** (1963) Professor; B.F.A., Carnegie Institute of Fine Arts; M.F.A., Cranbrook Academy of Art (F)
- Van Haren, John E.** (1960) Professor, Department Head; B.S., M.A., University of Wisconsin (F)
- Washington, Richard E.** (1970) Associate Professor; B.A., M.A., Eastern Michigan University (F)
- Williams, Patricia J.** (1976) Professor; B.A., Carleton College; M.F.A., Indiana University (F)

- Yager, Jay R.** (1968) Professor; B.S., State University of New York, Buffalo; M.F.A., M.S., University of Wisconsin (F)
- Zahratka, Michael C.** (1960) Professor; B.F.A., Cleveland Institute of Art; M.B.A., Syracuse University (F)

ASSOCIATED HEALTH PROFESSIONS

- Douglass, Richard L.** (1987) Assistant Professor; B.S., Alma College; M.P.H., Ph.D., The University of Michigan (F)
- Dreachslin, Janice L.** (1987) Assistant Professor; B.A., M.E., Ph.D., Wayne State University (F)
- Hansen, Ruth A.** (1976) Associate Professor; B.S., Ohio State University; M.S., Ph.D., Wayne State University (A)
- Renk, Clifford** (1985) Associate Professor; B.S., University of Pittsburgh; Ph.D., University of Florida (F)
- Sonstein, Stephen** (1984) B.A., Rutgers University; M.S., Ph.D., Hahnemann Medical College (F)

BIOLOGY

- Booth, Howard D.** (1967) Professor; B.S., M.S., Eastern Michigan University; Ph.D., Michigan State University (F)
- Eisenbach, Jamin** (1990) Assistant Professor; B.S., Cornell University; M.S., Ph.D., University of California-Berkley (PF)
- Fennel, William E.** (1970) Professor, Acting Department Head; B.A., M.A., University of Missouri; Ph.D., The University of Michigan (F)
- Ghosheh, Najati S.** (1965) Professor; B.S., M.S., Kansas State University; Ph.D., University of Illinois (F)
- Guy, William L.** (1989) Assistant Professor; B.S., Eastern Michigan University; Ph.D., Wayne State University (PF)
- Hannan, Gary L.** (1982) Associate Professor; B.A., University of California, Santa Barbara; Ph.D., University of California, Berkley (F)
- Hurst, Edith M.** (1973) Professor; B.S., Wayne State University; M.A., Ph.D., The University of Michigan (F)
- Jackson, Dennis C.** (1967) Professor; B.S., Arizona State University; M.S., Ph.D., Michigan State University (F)
- Kurta, Allen** (1988) Assistant Professor; B.S., M.S., Michigan State University; Ph.D., Boston University (F)
- Liu, Stephen C.** (1965) Professor; B.A., M.S., National Taiwan University; Ph.D., University of Minnesota (F)
- Milske, Paul W.** (1967) Assistant Professor; B.S., College of St. Thomas; M.A., University of Michigan (F)
- Minick, Merlyn C.** (1966) Professor; B.S., Eastern Michigan University; M.S., The University of Michigan; Ph.D., Wayne State University (F)

- Neely, Robert K.** (1984) Associate Professor; B.S., Southwest Baptist College; M.S., Baylor University; Ph.D., Iowa State University (F)
- Novak, John A.** (1986) Assistant Professor; Ph.D., M.S., Wayne State University; Ph.D., The University of Michigan (F)
- Reinthal, Peter N.** (1991) Assistant Professor; B.S., Reed College; M.S., Yale University; Ph.D., Duke University (PF)
- Simone, P. George** (1977) Associate Professor; B.S., University of Chicago; Ph.D., University of New Mexico (F)
- Stevens, Suzanne J.** (1970) Professor; B.S., M.A., Eastern Michigan University; Ph.D., The University of Michigan (F)
- VandenBosch, James L.** (1987) Assistant Professor; B.B.A., University of Michigan-Dearborn, M.S., Eastern Michigan University, Ph.D., The University of Michigan (A)
- Volz, Paul A.** (1969) Professor; B.A., Heidelberg College; M.S., Ph.D., Michigan State University (F)
- Waffle, Elizabeth L.** (1968) Associate Professor; B.A., Cornell College; M.S., State University of Iowa; Ph.D., Iowa State University (F)
- Wainscott, V. Jean** (1985) Assistant Professor; B.S., Panhandle A. and M. College; M.A., University of Kansas; Ph.D., University of Oklahoma Health Sciences Center (F)
- Walker, Glenn K.** (1976) Professor; B.S., University of Massachusetts; M.S., Northern Arizona University; Ph.D., University of Maryland (F)
- Yu, Shih-An** (1967) Professor; B.S., National Taiwan University; M.S., Ph.D., University of New Hampshire (F)

BUSINESS AND INDUSTRIAL EDUCATION

- Barnes, James L.** (1987) Assistant Professor; B.S., Ed.D., Virginia Polytechnic Institute and State University; M.E.D., Virginia State University (F)
- Jennings, Gerald L.** (1963) Professor; B.S., M.A., Ball State University; Ph.D., Michigan State University (F)
- Kieft, Lewis D.** (1971) Professor; B.S., M.A., Eastern Michigan University; Ph.D., Ohio State University (F)
- Meyer, Earl** (1990) Associate Professor; B.A., University of Southern Florida; M.E.D., Ph.D., Georgia State University (A)
- PaDelford, Harold E.** (1970) Professor; B.S., Mankato State College; M.A., Ph.D., University of Minnesota (F)
- Remp, Ann M.** (1984) Professor; B.A., Holy Names College; M.A., Ph.D., Michigan State University (F)
- Ristau, Robert A.** (1973) Professor; B.B.A., M.S., Ph.D., University of Wisconsin (F)
- Robek, Mary F.** (1958) Professor; B.Ed., Wisconsin State College; M.A., Northwestern University; M.B.A., Ph.D., The University of Michigan (F)

- Rokusek, H. James** (1964) Professor, Department Head; B.S., M.S., Stout State University; Ph.D., University of Maryland (F)
- Wilson, Herbert H.** (1966) Associate Professor; B.S., Kent State University; M.A., West Virginia University (F)
- Wingo, Rosetta C.** (1968) Professor; B.S., Morgan State College; M.A., New York University; Ph.D., Michigan State University (F)

CHEMISTRY

- Brabec, Michael J.** (1986) Professor; B.S., Ph.D., University of Wyoming (F)
- Brewer, Stephen** (1969) Professor; B.S., University of Florida; Ph.D., University of Wisconsin (F)
- Compere, Edward L., Jr.** (1964) Professor; B.S., Beloit College; M.S., University of Chicago; Ph.D., University of Maryland (F)
- Contis, Ellene T.** (1980) Associate Professor; B.S., Youngstown State University; M.S., University of Pittsburgh (F)
- Howard, Arthur S.** (1990) Associate Professor; B.S., Rhodes University; Ph.D., Cambridge University (PF)
- Levy, Judith T. Z.** (1986) Professor, Department Head; A.B., Goucher College; Ph.D., Johns Hopkins University School of Medicine (F)
- Milletti, Maria** (1986) Assistant Professor; B.A., Wellesley College; Ph.D., University of Wisconsin (PF)
- Nicholson, Elva M.** (1972) Professor; B.S., Bucknell University; M.S., Radcliffe College; Ph.D., Harvard University (F)
- Nord, Ross** (1986) Assistant Professor; B.A., University of Minnesota; Ph.D., Iowa State University (A)
- Phillips, Donald B.** (1973) Professor; B.A., Concordia College; M.S., North Dakota State University; Ph.D., University of Georgia (F)
- Powell, Ralph R.** (1966) Associate Professor; B.S., Marian College; Ph.D., Purdue University (F)
- Ramsay, O. Bertrand** (1965) Professor; B.S., Washington and Lee University; Ph.D., University of Pennsylvania (F)
- Rengan, Krishnaswamy** (1970) Professor; B.S., University College Trivandrum; Ph.D., The University of Michigan (F)
- Schullery, Stephen E.** (1970) Professor; B.A., Eastern Michigan University; Ph.D., Cornell University (F)
- Scott, Ronald M.** (1959) Professor; B.S., Wayne State University; Ph.D., University of Illinois (F)
- Sullivan, John M.** (1958) Professor; B.A., Dartmouth College; M.S., Ph.D., The University of Michigan (F)
- Tornquist, Wade** (1986) Assistant Professor; B.S., Southwest State University; Ph.D., University of Minnesota (F)
- Williamson, Jerry R.** (1967) Associate Professor; B.A., University of Illinois; M.S., Ph.D., University of Iowa (F)

- Work, Stewart D.** (1964) Professor; B.A., Oberlin College; Ph.D., Duke University (F)
- Yamauchi, Masanobu** (1965) Professor; B.A., University of Hawaii; M.S., Ph.D., The University of Michigan (F)

COMMUNICATION AND THEATRE ARTS

- Aldridge, Henry B.** (1972) Professor; B.A., M.A., University of North Carolina; Ph.D., The University of Michigan (F)
- Beagen, Dennis M.** (1969) Professor, Department Head; B.S., Eastern Michigan University; M.A., The University of Michigan (F)
- Bird, P. George** (1955) Professor; B.S., M.S., University of Wisconsin (F)
- Bowen, Harry W.** (1967) Professor; B.A., Westminster College; M.A., Ohio State University; Ph.D., University of Pittsburgh (F)
- Capecchi, John** (1990) Assistant Professor; B.S., Eastern Michigan University; M.A., University of North Carolina; Ph.D., Southern Illinois University (PF)
- Compton, Gail W.** (1969) Professor; B.A., University of Evansville; M.S., Ph.D., The University of Wisconsin (F)
- Evans, Gary L.** (1964) Professor; B.A., Wayne State University; M.A., Ph.D., The University of Michigan (F)
- Gousseff, James W.** (1963) Professor; B.S., Iowa State College of Agriculture and Mechanic Arts; M.A., Cornell University; M.F.A., Yale University; Ph.D., Northwestern University (F)
- Hammill, Geoffrey** (1987) Assistant Professor; B.S., M.A., Ph.D., Bowling Green University (F)
- Liggett, Lucy A.** (1983) Professor; B.A., Western College; M.A., Bowling Green State University; Ph.D., The University of Michigan (F)
- Martin, Annette** (1963) Professor; B.A., Eastern Michigan University; M.S., University of Wisconsin; Ph.D., The University of Michigan (F)
- McCracken, Sally R.** (1968) Professor; B.A., Muskingum College; M.A., Bowling Green State University; Ph.D., Wayne State University (F)
- McElya, Mitchel R.** (1967) Professor; B.S., M.F.A., University of Wisconsin (F)
- Morgan, Willie B.** (1968) Professor; B.A., University of Richmond; M.A., University of Virginia (F)
- Murray, Thomas J.** (1963) Professor; B.A., M.A., Ph.D., The University of Michigan (F)
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COMPUTER SCIENCE

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ECONOMICS

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ENGLISH LANGUAGE AND LITERATURE

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FINANCE

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FOREIGN LANGUAGES AND BILINGUAL STUDIES

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- Cline, William J.** (1970) Professor; B.A., University of California; M.A., Ph.D., State University of New York, Buffalo (F)
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GEOGRAPHY AND GEOLOGY

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HEALTH, PHYSICAL EDUCATION, RECREATION AND DANCE

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HISTORY AND PHILOSOPHY

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HUMAN, ENVIRONMENTAL AND CONSUMER RESOURCES

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INDUSTRIAL TECHNOLOGY

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LEADERSHIP AND COUNSELING

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MANAGEMENT

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- Beltsos, Nicholas** (1962) Assistant Professor; B.S., Marquette University; M.A., Michigan State University (F)
- Blanchard, P. Nick** (1978) Associate Professor; B.A., University of California, Los Angeles; M.A., San Diego State University; Ph.D., Wayne State University (F)
- Camp, Richaard** (1978) Professor; B.S., M.A., Ph.D., Wayne State University (F)
- Chowdhry, Pradeep** (1980) Associate Professor; B.B.M., Banares Hindu University, India; M.B.A., Northern Arizona University; Ph.D., University of Arkansas (F)
- Conley, James H.** (1969) Professor; B.A., Otterbein College; B.D., United Theological Seminary; Ph.D., Michigan State University (F)
- Crowner, Robert P.** (1975) Associate Professor; B.S.M.E., Purdue University; M.S., Butler University (F)
- Hendrickson, Lorraine U.** (1981) Associate Professor; A.B., Radcliffe College; M.A., Ph.D., The University of Michigan (F)
- Hill, Raymond** (1989) Professor; B.S., M.S., Ph.D., Purdue University (F)
- Hoitash, Charles F.** (1971) Professor; B.S., Harvard University; M.B.A., Cornell University; Ph.D., Michigan State University (F)
- Hoyer, Denise** (1985) Associate Professor; B.S., State University of New York at Brockport; Ph.D., The University of Michigan (A)
- Huszcz, Gregory E.** (1978) Professor; B.S., M.A., Ph.D., Michigan State University (F)
- McEnery, Jean** (1980) Professor; B.A., Marquette University; M.S., Northern Illinois University; Ph.D., Wayne State University (F)
- Patrick, Floyd A.** (1970) Professor, Department Head; B.S., University of Wisconsin; M.A., Ph.D., University of Iowa (F)
- Victor, David A.** (1985) Associate Professor; A.B., M.A., Ph.D., The University of Michigan (F)
- Vielhaber, Mary E.** (1977) Professor; B.A., University of Akron; M.A., Ph.D., The University of Michigan (F)
- Waltman, John L.** (1985) Associate Professor; B.A., M.A., Colorado State University; Ph.D., The University of Texas (F)

MARKETING

- Barton, Daryl L.** (1975) Assistant Professor; B.S., J.D., The University of Michigan (A)
- Belskus, Albert W.** (1969) Associate Professor; B.S., M.S., Indiana State University; Ph.D., The University of Michigan (F)
- Buzas, Thomas E.** (1989) Associate Professor; B.S., Carnegie-Mellon University; M.B.A. Gannon University; Ph.D., The University of Michigan (F)
- Defebaugh, Sandra J.** (1987) Assistant Professor; B.S., Michigan State University; J.D., Detroit College of Law (A)
- Fullerton, Sammy D.** (1982) Associate Professor; B.B.A., M.S., Memphis State University; Ph.D., Michigan State University (F)
- Ludlow, Robert R.** (1979) Associate Professor; B.S., Purdue University; M.B.A., Indiana University; Ph.D., Purdue University (F)
- McSurely, Hugh B.** (1981) Professor; B.A., B.S.I.E., Columbia University; M.B.A., Ph.D., Syracuse University (F)
- Merz, George R.** (1982) Associate Professor; B.S., Georgia Institute of Technology; M.B.A., Miami University; A.B.D., Michigan State University (F)
- Neuhaus, Colin F.** (1969) Professor; B.A., Gettysburg College; M.B.A., Ph.D., The University of Michigan (F)
- Sauber, Matthew H.** (1990) Associate Professor; B.B.A., Tehran Business School; M.B.A., Southeastern Louisiana University; Ph.D., University of Texas (P)
- Peterson, Roger A.** (1981) Professor; B.B.A., University of Hawaii; M.Sc., University of British Columbia; M.B.A., D.B.A., University of Tennessee (F)
- Spitz, A. Edward** (1969) Professor; Acting Department Head; B.B.A., City College of New York; M.S., Columbia University; Ph.D., University of Kentucky (F)
- Victor, Gary M.** (1974) Associate Professor; J.D., The University of Toledo (F)
- Welber, Joel S.** (1984) Assistant Professor; A.B., The University of Michigan; J.D., Wayne State University (F)
- Williams, Robert J.** (1966) Professor, Department Head; B.S., M.S., Ph.D., Cornell University (F)

MATHEMATICS

- Al-Kafaji, Mahmoud** (1983) Assistant Professor; B.S., M.S., California State University-Howard; Ph.D., New Mexico State University (A)
- Ahlbrandt, Gisela E.** (1984) Associate Professor; B.S., University of Giessen, Germany; M.S., University of Freiburg, Germany; Ph.D., University of Illinois, Chicago (F)
- Badii, Larry L.** (1965) Professor; B.A., M.A., San Jose State University; Ph.D., Oregon State University (F)
- Bartle, Robert G.** (1990) Professor; B.A., Swarthmore College; S.M., Ph.D., University of Chicago (PA)

- Buckeye, Donald A.** (1968) Professor; B.S., Ed.M., Ashland College; M.A.T., Ed. D., Indiana University (F)
- Carroll, Timothy B.** (1986) Associate Professor; B.S., The University of Michigan; M.A., Ph.D., Western Michigan University (A)
- Chattopaday, Rita** (1984) Associate Professor; B.S., M.S., University of Calcutta, India; Ph.D., University of South Florida (F)
- Chu, Shenghui** (1980) Associate Professor; B.S., National Taiwan University; M.PH., Ph.D., The University of Michigan (PA)
- Folk, David B.** (1987) Assistant Professor; B.S., Saint Norbert College; Ph.D., The University of Michigan (A)
- Gardiner, Christopher J.** (1984) Associate Professor; B.S., M.S., University of Melbourne, Australia; Ph.D., University of Illinois, Urbana-Champaign (F)
- Ginther, John L.** (1965) Professor; B.Ed., University of Toledo; Ed.M., Ph.D., University of Illinois (F)
- Goosey, Bob L.** (1959) Associate Professor; B.S., Montana State University; M.A., Pennsylvania State University; Ph.D., The University of Michigan (F)
- Hee, Christopher E.** (1969) Associate Professor; B.Ch.E., University of Detroit; Ph.D., University of Notre Dame (F)
- Howard, Paul E.** (1970) Professor; B.A., University of Missouri; Ph.D., The University of Michigan (F)
- Janardan, K. G.** (1986) Professor; B.S., M.S., University of Mysore; M.A., Ph.D., Pennsylvania State University (F)
- Johnson, David C.** (1973) Associate Professor; B.S., Eastern Nazarene College; Ed.M., Ed.D., University of Georgia (F)
- Lick, Donald R.** (1985) Professor, Department Head; B.S., M.S., Ph.D., Michigan State University (F)
- Marshall, Richard W.** (1968) Professor; B.S., University of Pittsburgh; M.A., Ed.D., The University of Michigan (F)
- Northey, James H.** (1957) Professor; B.S., Northern Michigan University; M.S., Ph.D., The University of Michigan (F)
- Parry, Walter** (1984) Associate Professor; B.S., Michigan State University; Ph.D., University of California, Berkeley (F)
- Rafiq, Mohammed A.** (1970) Associate Professor; B.A., Punjab University; M.S., University of Peshavar; Ph.D., Wayne State University (A)
- Ramanathan, Jayakumar** (1990) Associate Professor; B.A.; Reed College; S.M., Ph.D., University of Chicago
- Rankin, Joanne S.** (1963) Professor; B.A., M.A., Eastern Michigan University; Ph.D., The University of Michigan (F)
- Shiskowski, Kenneth M.** (1983) Associate Professor; B.A., Lehigh University; M.S., University of Illinois; Ph.D., Lehigh University (F)
- Ullman, Nelly S.** (1963) Professor; B.A., Hunter College; M.A., Columbia University; Ph.D., The University of Michigan (F)
- Walter, James R.** (1964) Assistant Professor; B.A., Otterbein College; M.A., The University of Michigan; Ph.D., Wayne State University (F)
- Warren, Bette** (1984) Associate Professor; A.B., Washington University; Ph.D., Indiana University (F)

MUSIC

- Abramson, Armand R.** (1967) Professor; B.Mus., University of Louisville; M.Mus., Eastman School of Music (A)
- Amos, C. Nelson** (1975) Professor; B.A., Morehead State University; M.A., Ohio State University; Ph.D., University of Iowa (A)
- Eggers, Carter J.** (1967) Professor; B.F.A., University of South Carolina; M.Mus., Ithaca College (PF)
- Foster, Daniel L.** (1987) Assistant Professor; B.M., The University of Michigan, M.M., University of Illinois (A)
- Gajda, Anne B.** (1979) Associate Professor; B.Mus.Ed., B.Mus., M.Mus., The University of Michigan (A)
- Gurt, Joseph** (1967) Professor; B.S., M.S., Julliard School of Music (F)
- Hartman, Donald C.** (1990) Assistant Professor; B.Mus., M.Mus., University of North Carolina (PA)
- Hause, James B.** (1971) Professor, Department Head; B.Mus., M.Mus., Ed.D., The University of Michigan (F)
- Henry, Oscar M.** (1968) Professor; B.A., Fisk University; M.A., Harvard University; Ph.D., Ohio State University (F)
- Hill, Rodney L.** (1969) Professor; B.M., University of Kentucky; M.M. University of Cincinnati; D.M.A., The University of Michigan (F)
- Iannaccone, Anthony J.** (1971) Professor; B.Mus., M.Mus., Manhattan School of Music; Ph.D., University of Rochester (F)
- Kalib, Sylvan S.** (1969) Associate Professor; B.Mus., M.Mus., DePaul University; Ph.D., Northwestern University (F)
- Kirkland, Glenda E.** (1973) Associate Professor; B.A., Spellman College; B.S., Julliard School of Music; M.A., Eastern Michigan University (F)
- Mehta, Dady** (1969) Professor; Concert Diploma, Piano, Ecole Normale de Musique, Paris, France; Master of Piano Performance, State Academy of Music, Vienna, Austria (F)
- Meretta, Kristy L.** (1986) Assistant Professor; B.A., M.A., M.M., The University of Michigan (A)
- Patrick, Louise** (1990) Associate Professor; B.Mus.Ed., The University of Michigan; M.Mus., M.Mus.Ed., Ph.D., Michigan State University (PF)
- Pedersen, Garik** (1989) Assistant Professor; B.Mus., B.Mus.Ed., M.A., Central Missouri State University; D.M.A., The University of Iowa (F)
- Pierce, David** (1990) Assistant Professor; B.Mus., M.Mus., D.M.A., University of Illinois (PF)

- Plank, Max E.** (1968) Professor; B.Mus.Ed., M.Mus., Kansas State Teachers College; D.M.A., The University of Michigan (F)
- Prince, Whitney** (1981) Associate Professor; B.Mus., M.Mus., The University of Michigan; D.M.A., University of Colorado, Boulder (A)
- Reed, Russell E.** (1979) Professor; B. Mus., M.Mus., The University of Michigan (F)
- Riccinto, Leonard L.** (1985) Associate Professor; B.M., M.M., The University of Michigan; D.M.A., Michigan State University (F)
- Teal, Mary D.** (1968) Professor; B.S., Northwestern State College; M.Mus., Ph.D., The University of Michigan (F)
- Woike, David O.** (1990) Assistant Professor; B.Mus., M.Mus., Ph.D., Ohio State University (PA)
- Yost, Mary Ida** (1968) Professor; B.Mus., University of North Carolina; M.Mus., Ph.D., The University of Michigan (F)
- Zirk, Willard** (1981) B.Mus.Ed., M.Mus., Catholic University of America; A.Mus.D, The University of Michigan (PF)

OPERATIONS RESEARCH AND INFORMATION SYSTEMS

- Ahmad, Imtiaz** (1980) Professor; B.S., University of Punjab; M.Sc., Ph.D., University of Ottawa (F)
- Ellis, Wayne C.** (1979) Associate Professor; B.S., M.S., Ph.D., The University of Michigan (F)
- Esteva, Juan C.** (1990) Assistant Professor; M.S., The University of Michigan; Ph.D., Wayne State University (PF)
- Farah, Badie** (1982) Associate Professor; B.S., M.A., University of Damascus; M.S., Wayne State University; M.S.I.E., Ph.D., Ohio State University (F)
- Gledhill, Roger C.** (1976) Associate Professor; B.S., Miami University; M.A., University of Massachusetts; M.S., Ph.D., Virginia Polytechnic Institute and State University (F)
- Khailany, Asad** (1972) Professor; B.S., Baghdad University, India; M.S., St. Louis University; M.S., D.Sc., Washington University (F)
- Khorshid, Wafa** (1990) Assistant Professor; B.A., Almustansiriyha University; M.A., M.S., Eastern Michigan University; M.A., Ph.D., Wayne State University (PF)
- Kramer, Morrey** (1984) Associate Professor; Ph.D., The University of Michigan (A)
- Mirshah, Hassan** (1986) Associate Professor; B.S., George Washington University; M.S., Florida Institute of Technology; M.B.A., Ph.D., Pennsylvania State University (F)
- Mrdalj, Stevan** (1987) Assistant Professor; B.S., M.S., Ph.D., University of Belgrade, Yugoslavia (A)
- Sanchez, Pedro P.** (1972) Professor; B.A., M.A., University of Florida; Ph.D., The University of Michigan (F)

- Saxon, Charles S.** (1976) Professor; B.S.E., L.L.B., M.B.A., M.S.E., Ph.D., The University of Michigan (F)
- Sokkar, Fat-Hi F.** (1971) Professor; B.Com., Cairo University, Egypt; M.B.A., Eastern Michigan University; Ph.D., University of Illinois (F)
- Truax, Terry D.** (1978) Assistant Professor; B.A., University of Kansas-Lawrence; M.A., Louisiana State; M.S., The University of Michigan (A)
- Tummala, V.M. Rao** (1981) Professor, Department Head; B.A., Andhra University, India; M.A., Gujarat University, India; M.S., Ph.D., Michigan State University (F)
- Woodland, Linda** (1983) Associate Professor; B.A., Cleveland State University; M.S., Ph.D., Purdue University (F)
- Wu, Nesa L-J** (1974) Professor; B.S., University of Louvain, Belgium; M.S., Ph.D., Purdue University (F)
- Young, Kenneth C.** (1974) Associate Professor; B.A., Carson-Newman College; M.B.A., Harvard University; M.S., Ph.D., Purdue University (F)

PHYSICS AND ASTRONOMY

- Gabl, Edward F.** (1990) Associate Professor; B.S., Northern Illinois University; M.S., Purdue University; Ph.D., University of Iowa (PF)
- Jacobs, Diane A.** (1985) Associate Professor; B.S., University of Miami; Ph.D., University of Texas, Austin (F)
- Oakes, Alexandria** (1987) Assistant Professor; B.S., St. John's University; M.S., Ph.D., Lehigh University (A)
- Porter, James C.** (1967) Professor; B.S., Ph.D., Purdue University (F)
- Roth, Richard F.** (1969) Associate Professor; B.S., Rockhurst College; M.A., Ph.D., Princeton University (F)
- Sharma, Natthi L.** (1986) Assistant Professor; B.S., M.S., University of Indore, India; Ph.D., Ohio University (F)
- Silver, Robert** (1966) Professor; B.S., Wayne State University; Ph.D., University of California (F)
- Thomsen, J. Marshall** (1986) Assistant Professor; A.B., M.A., Harvard University; Ph.D., The University of Michigan (F)
- Trochet, P. Daniel** (1968) Professor, Department Head; B.S., M.S., Eastern Michigan University; Ph.D., The University of Michigan (F)
- Wooley, Jon K.** (1967) Professor; B.S., The University of Michigan; M.A., Swarthmore College; Ph.D., The University of Michigan (F)
- Wylo, Bonnie** (1988) Assistant Professor; B.S., M.S., Eastern Michigan University (PF)

POLITICAL SCIENCE

- Brown, Ronald E.** (1986) Associate Professor; B.A., Southern Illinois University; M.A., Ph.D., The University of Michigan (F)

- Grady II, Robert C.** (1971) Professor; B.A., Centre College of Kentucky; M.A., Ph.D., Vanderbilt University (F)
- Hortin, David W.** (1968) Associate Professor; B.A., Southern Illinois University; J.D., The University of Michigan (F)
- Hourani, Benjamin T.** (1968) Professor; B.A., M.A., American University, Beirut; Ph.D., Michigan State University (F)
- Johnson, James D.** (1968) Professor, Department Head; B.A., Jamestown College; M.A., University of North Dakota; M.A., Ph.D., The University of Michigan (F)
- Lindenberg, Karen E.** (1968) Professor; B.S., Ph.D., University of Oregon (F)
- Magee, James S.** (1972) Professor; B.A., Hamilton College; M.A., Ph.D., Princeton University (F)
- Martin, F. Elaine** (1984) Professor; B.A., M.P.A., Ph.D., University of Oklahoma (F)
- Ohren, Joseph** (1985) Associate Professor; B.A., Aquinas College; M.P.A., Ph.D., Syracuse University (F)
- Racz, Barnabas A.** (1968) Professor; J.D., University of Budapest; M.A., Ph.D., The University of Michigan (F)
- Reese, Laura A.** (1985) Professor; B.A., The University of Michigan, Dearborn; M.P.A., Ph.D., Wayne State University (F)
- Rosenfeld, Raymond A.** (1983) Associate Professor; B.A., M.A., Ph.D., Emory University (F)
- Sabaliunas, Leonas** (1966) Professor; A.B., University of Illinois; M.I.A., Ph.D., Columbia University (F)

PSYCHOLOGY

- Bonem, Marilyn K.** (1987) Assistant Professor; B.A., Western Washington University; M.A., Drake University; Ph.D., Utah State University (A)
- Brackney, Barbara E.** (1975) Associate Professor; A.B., University of California; Ph.D., The University of Michigan (PF)
- Dansky, Jeffrey L.** (1976) Professor; B.A., Temple University; M.A., Ph.D., Bowling Green State University (F)
- Delprato, Dennis J.** (1969) Professor; B.A., Washington and Jefferson College; M.S., Ohio University; Ph.D., Michigan State University (F)
- Flagg, Thomas L.** (1988) Assistant Professor; B.A., M.A., Ph.D., The University of Michigan (A)
- Friedman, Monroe P.** (1964) Professor; B.S., Brooklyn College; Ph.D., University of Tennessee (F)
- Gordon, Norman G.** (1975) Professor; B.A., M.S., Ph.D., Wayne State University (F)
- Hodges, V. Kay** (1989) Professor; B.A., Duke University; Ph.D., University of Maryland (F)
- Holmes, Peter A.** (1968) Professor; B.A., Franklin and Marshall College; M.A., Bryn Mawr College; Ph.D., University of Delaware (F)
- Karabenick, Stuart A.** (1966) Professor; B.A., Ph.D., The University of Michigan (F)

- Knapp, John R.** (1971) Professor; B.A., Hope College; M.A., Ph.D., University of Denver (F)
- McManus, John L.** (1981) Associate Professor; B.S., M.A., Ph.D., Ohio State University (F)
- Meisels, Murray** (1965) Professor; B.A., Brooklyn College; Ph.D., State University of New York, Buffalo (F)
- O'Dell, Jerry W.** (1966) Professor; B.A., University of Cincinnati; Ph.D., The University of Michigan (F)
- Roff, James D.** (1976) Professor; B.A., Ph.D., University of Minnesota (F)
- Rusiniak, Kenneth W.** (1981) Associate Professor; Acting Department Head; B.S., Northern Illinois University; M.A., Ph.D., University of California, Los Angeles (F)
- Todd, James** (1990) Assistant Professor; B.A., M.A., Ph.D., University of Kansas (P)
- von Kluge, Silvia** (1990) Assistant Professor; B.A., M.A., California State University; Ph.D., Michigan State University (PF)
- Westman, Alida S.** (1972) Professor; B.S., M.S., Washington State University; Ph.D., Cornell University (F)
- Youssef, Zakhour I.** (1965) Professor; B.A., M.A., Ph.D., Wayne State University (F)

SOCIAL WORK

- Brown, Kaaren** (1978) Associate Professor; B.S., University of Wisconsin; M.S.W., The University of Michigan (F)
- McFadden, Emily Jean** (1981) Associate Professor; B.A., Western Michigan University; M.S.W., The University of Michigan (F)
- Schuster, Elizabeth O.** (1986) B.A., M.A., The University of Michigan (PA)
- Smith, Marguerite** (1971) Associate Professor; B.A., University of Pennsylvania; B.D., Yale University; M.S.W., The University of Michigan (F)

SOCIOLOGY

- Cerroni-Long, E. L.** (1987) Assistant Professor; Science Certificate, Doctorate, University of Venice; Ph.D., University of California (F)
- Easto, Patrick C.** (1970) Professor; B.S., Eastern Michigan University; M.A., Wayne State University; Ph.D., Syracuse University (F)
- Ehrlich, Allen S.** (1968) Professor; B.A., University of Cincinnati; M.A., University of Minnesota; Ph.D., The University of Michigan (F)
- Einstadter, Werner J.** (1967) Professor; B.A., M.A., D. Crim., University of California, Berkeley (F)
- Henry, Stuart** (1987) Associate Professor; B.A., Ph.D., University of Kent, Canterbury, England (F)
- Moss, Gordon E.** (1971) Professor; B.S., Brigham Young University; M.A., Rutgers University; Ph.D., State University of New York, Buffalo (F)

- Rankin, Joseph H.** (1984) Professor; B.A., Central College; M.A., Ph.D., University of Arizona (F)
- Richmond-Abbott, Marie L.** (1973) Professor; B.A., Duke University; M.A., University of Miami; Ph.D., Florida State University (F)
- Ryan-Warren, Patricia** (1966) Professor; B.A., Wayne State University; M.A., Ph.D., The University of Michigan (F)
- Sinclair, Karen P.** (1974) Professor; B.A., Brooklyn College; M.A., Ph.D., Brown University (F)
- Thalhofer, Nancy N.** (1969) Assistant Professor; B.A., Lawrence College; M.A., Ph.D., The University of Michigan (A)
- Truzzi, Marcello** (1974) Professor; B.A., Florida State University; M.A., University of Florida; Ph.D., Cornell University (F)
- Warren, Bruce L.** (1969) Professor; B.A., Alma College; M.A., Ph.D., The University of Michigan (F)
- Wasserman, Ira M.** (1969) Professor; B.S., Pennsylvania State University; M.S., University of Minnesota; M.A., New School for Social Research; Ph.D., The University of Michigan (F)
- Weinstein, Jay** (1985) Professor; A.B., University of Illinois, Urbana; M.A., Washington University; Ph.D., University of Illinois, Urbana (F)
- Westrum, Ronald M.** (1972) Professor; B.A., Harvard University; M.A., Ph.D., University of Chicago (F)

SPECIAL EDUCATION

- Anderson, Roberta** (1976) Assistant Professor; B.A., M.A., Eastern Michigan University (A)
- Barach, George** (1969) Associate Professor; B.S., Wayne State University; M.Ed., Boston College; Ph.D., Wayne State University (F)
- Beebe, Michael** (1976) Associate Professor; B.S., Eastern Michigan University; M.A., Ph.D., The University of Michigan (F)
- Bemish, Lawrence M.** (1967) Assistant Professor; B.S., Eastern Michigan University; A.M., Ph.D., The University of Michigan (F)
- Chamberlain, Marjorie** (1971) Assistant Professor; B.S., M.A., Wayne State University (A)
- Coyner, Joseph** (1969) Associate Professor; B.S., M.A., Sp.A., Eastern Michigan University (F)
- French, Dorothea B.** (1990) Associate Professor; B.S., Miami University; M.S., Washington University; Ph.D., Dalhousie University (PF)
- Geffen, Lawrence F.** (1968) Associate Professor; B.Ed., Fredonia State Teacher's College; M.A., New York University; Ph.D., George Peabody College (F)
- Gorenflo, Carole W.** (1988) Assistant Professor; B.S., Purdue University; M.Sc., University of London; Ph.D., Michigan State University (P)
- Gottwald, Henry L.** (1964) Professor; B.S., Eastern Michigan University; M.A., The University of Michigan; E.D., Wayne State University (F)

- Halmhuber, Nancy** (1979) Assistant Professor; B.S., Central Michigan University; Sp.A., Eastern Michigan University; Ph.D., The University of Michigan (PA)
- Hoodin, Ronald B.** (1988) Associate Professor; B.S., M.S., Miami University; M.S., Ph.D., Pennsylvania State University (F)
- Kreger, Robert D.** (1990) Associate Professor; B.S., M.A., Eastern Michigan University; Ph.D., The University of Michigan (PF)
- Lake, Marylyn E.** (1967) Professor; B.A., M.A., Eastern Michigan University; Ph.D., The University of Michigan (F)
- Martin, Nora** (1967) Professor; B.A., M.S., Eastern Michigan University; Ph.D., The University of Michigan (F)
- Massenberg, Angela R.** (1988) Assistant Professor; B.S., Wayne State University; M.A., Eastern Michigan University; Ph.D., Michigan State University (PF)
- McClennen, Sandra E.** (1971) Professor; B.S., M.A., Ph.D., The University of Michigan (F)
- Nash, Gayle** (1977) Associate Professor; B.S., Converse College; M.A., Ed.D., University of Alabama (F)
- Navarre, Gary** (1970) Professor; B.S., Eastern Michigan University; M.S., University of Oregon; Ed.D., Wayne State University (F)
- Palasek, James R.** (1966) Professor; A.B., Western Michigan University; M.S., Purdue University; Ph.D., Syracuse University (A)
- Quinn, Kathleen S.** (1965) Associate Professor; B.S., Washington University; M.A., Eastern Michigan University; Ph.D., The University of Michigan (F)
- Rice, Dale L.** (1967) Professor; B.A., M.S.W., Ph.D., The University of Michigan (F)
- Rupp, Ralph R.** (1985) Assistant Professor; B.A., M.A., The University of Michigan; Ph.D., Wayne State University (F)
- Schatz, Kenneth H.** (1990) Assistant Professor; B.S., M.A., Eastern Michigan University (PA)
- Skore, Marvin L.** (1968) Associate Professor; B.A., Wayne State University; M.A., Eastern Michigan University; Ph.D., Wayne State University (F)
- Smith, Margaret** (1981) Associate Professor; B.A., M.A., Ph.D., Michigan State University (F)

TEACHER EDUCATION

- (Formerly Curriculum and Instruction, Educational Psychology, and Social Foundations)**
- Adams, Leah** (1969) Professor; B.S., Ohio State University; M.A., Wayne State University; Ph.D., The University of Michigan (F)
- Allen, Irene A.** (1968) Professor; B.S., Johnson Teachers College; M.A., Ed.D., Ball State University (F)
- Bajwa, Ranjit S.** (1963) Professor; B.A., B.T., Punjab University; Ed.D., Wayne State University (F)
- Belt, Gordon A.** (1968) Associate Professor; B.S., Central Michigan University; M.A., Michigan State University; Ed.D., Wayne State University (F)

- Bigler, Mary G.** (1977) Professor; B.A., Aquinas College; M.A., Eastern Michigan University; Ph.D., The University of Michigan (F)
- Blair, John** (1970) Professor; B.S., M.S., Indiana University; Ph.D., The University of Michigan (F)
- Brozo, William G.** (1988) Assistant Professor; B.A., University of North Carolina; M.Ed., Ph.D., University of South Carolina (F)
- Bushey, James T.** (1969) Associate Professor; Ph.D., M.A., University of Detroit; Ed.D., Wayne State University (F)
- Dellas, Marie** (1969) Professor; B.S., M.Ed., Ph.D., State University of New York, Buffalo (F)
- Diamond, Barbara J.** (1986) Associate Professor; B.S., Ohio State University; M.A., Ph.D., Michigan State University (A)
- Gardner, Trevor** (1985) Associate Professor; B.A., B.S., West Indies University; M.A., Andrews University; Ph.D., Michigan State University (F)
- Greene, Bert I.** (1963) Professor; B.S., Eastern Michigan University; M.A., Ph.D., The University of Michigan (F)
- Gwaltney, Thomas M.** (1964) Professor; B.A., Eastern Michigan University; B.S., Southeast Missouri State College; M.S., Ph.D., Southern Illinois University (F)
- Huyvaert, Sarah** (1986) Assistant Professor; B.S., M.S., Ph.D., Indiana University (F)
- Irwin, Martha E.** (1964) Professor; B.A., M.Ed., Bowling Green State University; Ed.D., Western Reserve University (F)
- Jernigan, Louise F.** (1970) Professor; B.A., Valparaiso University; M.Ed., Ph.D., Kent State University (F)
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