MESSAGE FROM THE PRESIDENT

Daily life is becoming increasingly complex as a result of seemingly unending technological and social changes which affect our lives at home, and in leisure activities. It is very apparent that success and satisfaction in life is becoming more dependent upon postsecondary education for the skills and knowledge needed to maintain or earn required career credentials - and to ensure our intellectual connectedness to a rapidly transforming society and world. To these ends, Mid Michigan Community College is committed to providing high quality and readily accessible educational programs and services. The faculty, staff, and administration are devoted to bringing this promise into daily practice.

Whether your goal is to graduate with a 2-year Associates Degree, or to take a class to hone your skills in welding or computer literacy, we are here to assist you. The moment you walk in our door we will assist you with counseling, class placement, financial aid, tutoring, developmental classes, and most importantly . . . with concern and respect for you as an individual. Our commitment to understand your unique needs and requirements allows our faculty and staff to ease the challenge between family, job, and attaining your educational goal at Mid.

I truly believe that you will find attending Mid Michigan Community College one of the best and most personally gratifying experiences in your life. On behalf of the Board of Trustees and the College staff . . . Welcome to Mid!

Ron Verch, President

MMCC’S BOARD OF TRUSTEES

Left to right: Mark D. Mann, Trustee (Harrison); Douglas A. Jacobson, Vice Chair (Gladwin); Thomas W. Metzger, Trustee (Coleman), Charles W. Buck, Treasurer (Gladwin); Richard S. Allen, Jr., Secretary (Clare); Betty M. Mussell, Board Chair, (Clare); Ronald G. Verch, MMCC President; Carolyn C. Bay, Trustee (Clare)
The 560-acre Harrison Campus of Mid Michigan Community College is located in the rural environment of northern Michigan, situated between the cities of Harrison and Clare on Old U.S. Highway 27. A 20-acre area is used for the current College facilities and the remainder of the property is in its natural state.

The Mt. Pleasant Campus of Mid Michigan Community College is located on M-20 East near the U.S. 27 freeway and adjacent to a golf course. Its suburban environment complements the modern atmosphere of the campus facility.

The Mid Michigan area is noted for four-season outdoor sports. The area has thousands of acres of public lands, many lakes and rivers, numerous golf courses, two ski hills, and hundreds of miles of snowmobile trails.
I. INTRODUCTION
Campus Directory, Academic Calendar, Assurance of Quality, Mission Statement & Goals, MMCC in Profile, History, Accreditation, Equal Opportunity/Affirmative Action, Americans with Disabilities Act

II. COLLEGE SERVICES AND PROCEDURES
Admissions, Advanced Credit Options, Assessment and Advising, Enrollment Services, Financial Aid, Cost of Attending College, Grades and Graduation, Support Services, Student Activities, Student Regulations

III. ACADEMIC PROGRAMS
General Education Requirements, Distribution Groups, MACRAO Agreement, Cancellation of Courses and Programs, Arts & Science Programs/Degrees, Business Programs/Degrees, Health Education Programs/Degrees, Technical Programs/Degrees

IV. COURSE DESCRIPTIONS
Interpretation of Numbering System, Course Descriptions

V. GENERAL
Personnel Directory, Index

The contents of this catalog are subject to change; therefore, it cannot be considered a contract or agreement between an individual and Mid Michigan Community College or its administrators. MMCC is an equal opportunity affirmative action institution and does not discriminate on the basis of race, color, origin, sex, age, or disability.
## CAMPUS DIRECTORY

<table>
<thead>
<tr>
<th>Campus</th>
<th>Phone Number</th>
<th>Room Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harrison Campus</td>
<td>(989) 386-6622</td>
<td></td>
</tr>
<tr>
<td>Mt. Pleasant Campus</td>
<td>(989) 773-6622</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>(989) 386-9088</td>
<td></td>
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<tr>
<td>Goldberg Center</td>
<td>(989) 386-6613</td>
<td></td>
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<tr>
<td>M-TEC</td>
<td>(989) 802-0971</td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>(989) 386-2411</td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>(989) 386-6666</td>
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### BUSINESS OFFICE

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<thead>
<tr>
<th>Department</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Accounts Payable</td>
<td>386-6610</td>
<td>Administration</td>
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<td>Accounts Receivable/Cashier</td>
<td>386-6611</td>
<td>Administration</td>
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<tr>
<td>Bookstore</td>
<td>386-6639</td>
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<td>Business Office</td>
<td>386-6622</td>
<td>Administration</td>
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<tr>
<td>Campus Services/Maintenance</td>
<td>386-6697</td>
<td>Room 160</td>
</tr>
<tr>
<td>Communications &amp; Computer Services</td>
<td>386-6651</td>
<td>Room 270</td>
</tr>
<tr>
<td>Hospitality/Food Services</td>
<td>386-6688</td>
<td>Food Service</td>
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<td>Human Resources/Personnel</td>
<td>386-6606</td>
<td>Administration</td>
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<td>Office of the President</td>
<td>386-6601</td>
<td>Administration</td>
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<td>Payroll</td>
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### INSTRUCTION

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<td>Continuing Education</td>
<td>773-6622</td>
<td>Mt. Pleasant</td>
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<tr>
<td>Computer Labs Office</td>
<td>386-6653</td>
<td>Room 290</td>
</tr>
<tr>
<td></td>
<td>773-6622</td>
<td>Mt. Pleasant</td>
</tr>
<tr>
<td>Dean of Occupational Studies</td>
<td>386-6642</td>
<td>Room 206</td>
</tr>
<tr>
<td>Faculty-Harrison</td>
<td>386-6667</td>
<td>Room 252</td>
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<tr>
<td>Health Education</td>
<td>386-6643</td>
<td>Room E233</td>
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<tr>
<td>Vice President of Academic Services</td>
<td>386-6607</td>
<td>Room 268</td>
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<tr>
<td>Vice President of Institutional Services &amp; Technology</td>
<td>386-6637</td>
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### STUDENT SERVICES

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<tr>
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<tr>
<td>Admissions/Placement</td>
<td>386-6661</td>
<td>Goldberg</td>
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<tr>
<td>Assessment</td>
<td>386-6619</td>
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<td>Counseling</td>
<td>386-6626</td>
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<td>Mt. Pleasant</td>
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<tr>
<td>Dean of Student Services</td>
<td>386-6657</td>
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<td>Director of Student Services</td>
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<td>Mt. Pleasant</td>
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<td>Financial Aid/Veterans’ Services</td>
<td>386-6664</td>
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<td>Graduation</td>
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<td>Academic Support Center (ASC)</td>
<td>386-6677</td>
<td>Room 267</td>
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<tr>
<td>Library/Media Center</td>
<td>386-6617</td>
<td>Library</td>
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<td>Office of Enrollment Services</td>
<td>386-6659</td>
<td>Goldberg</td>
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<td>Touch Tone Registration</td>
<td>802-0225</td>
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<tr>
<td>Registrar</td>
<td>386-6659</td>
<td>Goldberg</td>
</tr>
<tr>
<td>Student Educational Services/Tutoring</td>
<td>386-6638</td>
<td>Room 152</td>
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<td></td>
<td>773-6622</td>
<td>Mt. Pleasant</td>
</tr>
<tr>
<td>Student Government Office (CSAS)</td>
<td>386-6691</td>
<td>Room 251</td>
</tr>
<tr>
<td>Transcripts</td>
<td>386-6659</td>
<td>Goldberg</td>
</tr>
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## ACADEMIC CALENDAR

### Summer Session 2002
- Classes Begin: June 24
- Independence Day/No Classes: July 4
- Classes End: August 2

### Fall Semester 2002
- Classes Begin: August 24
- Labor Day/No Classes: September 2
- Faculty Inservice/No Classes: November 27
- Thanksgiving Break/No Classes: November 28-Dec. 1
- Classes End: December 13

### Winter Semester 2003
- Classes Begin: January 8
- Spring Break/No Classes: March 1-7
- Faculty Inservice/No Classes: March 26
- Good Friday/No Classes: April 18
- Classes End: May 2
- Commencement: May 3

### Spring Session 2003
- Classes Begin: May 12
- Memorial Day/No Classes: May 26
- Classes End: June 20

### Summer Session 2003
- Classes Begin: June 23
- Independence Day/No Classes: July 4
- Classes End: August 1

### Fall Semester 2003
- Classes Begin: August 23
- Labor Day/No Classes: September 1
- Faculty Inservice/No Classes: November 26
- Thanksgiving Break/No Classes: November 27-30
- Classes End: December 12

### Winter Semester 2004
- Classes Begin: January 8
- Spring Break/No Classes: March 1-7
- Faculty Inservice/No Classes: March 26
- Good Friday/No Classes: April 18
- Classes End: May 2
- Commencement: May 3

### Spring Session 2004
- Classes Begin: May 12
- Memorial Day/No Classes: May 26
- Classes End: June 20
MID MICHIGAN COMMUNITY COLLEGE
ASSURANCE OF QUALITY

Mid Michigan Community College is committed to graduating students of high quality, fully capable of performing the skills specified in the student’s major, and in the area of the College’s general degree requirements. Mid Michigan Community College offers assurance to its students, prospective employers, and to transferring institutions, that individuals holding degrees or certificates with a “C” average or better are fully capable of competent performance.

Transferring students, who meet specified criteria should be able to perform at a level equal to or better than those students who were admitted as freshmen at the transferring institution.

The College will, upon recommendation from the institution to which the student transferred, permit the student to retake any course or courses in areas deemed deficient. This retake shall result in no tuition charges for the student.

The College has articulation agreements with a number of Michigan institutions. These agreements guarantee the transferability of the associate degree and of specific courses within the curriculum. Students following the direction of College counselors are assured of maximal transferability of earned credits.

Non-transferring students, who earn a degree or certificate with a “C” average or better can be expected to perform competently in the area in which they were instructed. Any employer who views a Mid Michigan Community College graduate as not possessing appropriate entry level skills, and can specify such deficiencies, may request remediation. The student will be permitted to retake a specified course or courses without an additional tuition charge.

The College recognizes that unused skills decay rapidly. The assurances offered herein are made for individuals who transfer or gain employment within a year of receiving a degree or certificate.

MISSION STATEMENT

The purpose of Mid Michigan Community College is to provide educational and community leadership for the development of human ability. To this end the College provides post-secondary education and services to enable students and the community to achieve success in a global society.

COLLEGE GOALS

1. Provide educational opportunities which will prepare students to transfer to baccalaureate institutions or add to their life skills.

Mid Michigan Community College provides courses comparable to those found in the freshman and sophomore years of the four-year college or university. Many of these courses are academic or liberal arts in nature and are open to all students regardless of program.

2. Provide educational opportunities which will prepare students for successful employment in business, health, and technical occupations.

Mid Michigan Community College provides a variety of occupational courses, certificate, and associate degree programs designed to assist students in preparing for initial employment in occupations, changing to new occupations, or advancing in their current occupations. These offerings are available to high school graduates, those who have not graduated, and those currently attending high school.

3. Provide counseling and guidance for students regarding decisions related to education.

Most students are uncertain of their educational objectives at the outset or change their plans once or several times during the college years. Thus, Mid Michigan Community College attempts to aid students in determining where their interests, inclinations, and abilities lie. Students are assisted in making intelligent vocational choices and in pursuing appropriate educational programs. Continuous efforts are made by the College staff to assist students in overcoming educational gaps and in acquiring basic learning tools for college work. An effort is made to identify students capable of doing advanced work in colleges and universities.

4. Provide community service by meeting educational, recreational, and cultural needs of the College community.

Mid Michigan Community College provides a meaningful identification with the community, serving as a center for intellectual, cultural, and physical growth. Thus, the College provides continuing educational opportunities such as community institutes, conferences, clinics, forums, workshops, seminars, concerts, exhibits, plays, and recreational activities. College facilities are available for use by community organizations and clubs. The College works hand in hand with business and industry in furthering area economic development.

The College serves the individual’s educational needs regardless of age, income, or formal educational background. Recognizing the older population of the community, the College makes a continuous effort to fulfill that older population’s educational and recreational needs. Special projects for low income or disadvantaged families are also provided. Through a wide variety of continuing education courses, College area residents may seek new interests, avocations, and/or improvement of life skills.
As a community college, we are committed to assisting each student meet his/her unique goals. As illustrated by the Fall 2001 profile, our student body is diverse:

<table>
<thead>
<tr>
<th>Student Credit Hour Load</th>
<th>Part-Time</th>
<th>54%</th>
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<tbody>
<tr>
<td>Full-Time</td>
<td>46%</td>
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<table>
<thead>
<tr>
<th>Class Designation</th>
<th>Freshman</th>
<th>32%</th>
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<tbody>
<tr>
<td></td>
<td>Sophomore</td>
<td>25%</td>
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<tr>
<td></td>
<td>Other</td>
<td>43%</td>
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<table>
<thead>
<tr>
<th>Student Age Distribution</th>
<th>Under 18</th>
<th>4%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>18-21</td>
<td>54%</td>
</tr>
<tr>
<td></td>
<td>22-35</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>36-50</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>51 &amp; over</td>
<td>1%</td>
</tr>
</tbody>
</table>

| Student Gender | Males | 40% |
|               | Females | 60% |

* Figures based on academic classes only

**Geographic Residence**
- Isabella County: 33%
- Clare County: 27%
- Gladwin County: 17%
- Gratiot County: 5%
- Other Counties: 18%

**Declared Curricula Choices**
- General Instruction: 54%
- Business/Public Service: 25%
- Health Occupations: 16%
- Trade/Industrial/Technical: 5%

**Class Times Attending**
- Day Hours: 64%
- Evening Hours: 35%
- Weekend Hours: 1%

**HISTORY**

The earliest activity in providing a community college to serve the Clare County/Gladwin County area began in 1962. Two years later the concept of the College was endorsed by the two local intermediate districts and the five local school districts within the two counties. As a result of the acceptance of this basic concept, a Citizens Advisory Council was formed to determine the feasibility of establishing a community college. The report of the Council, completed in 1965, recommended the formation of a local community college to serve the residents of the two-county area. The study report was then submitted to the Michigan Department of Public Instruction and notification of approval for the College was received in July, 1965.

In September, 1965, a special election was held to obtain community authorization for establishment of the College, to elect a governing Board of Trustees, and to approve construction and operating millage of 1.5 mills to be levied against the assessed property valuation in the voting district. The favorable response of the voters resulted in official approval by the Michigan State Board of Education to establish Michigan’s 25th community college.

During 1966-67, an administrative staff was employed to develop the initial planning for the campus and for the instructional program. At the same time, the architect was developing a master plan for building construction and development of the entire 560-acre site. Construction of the initial 1.5 million instructional facility began in May, 1968.

In the Fall of 1968, the first university parallel and non-technical classes began in temporary facilities in the Clare County Building in Harrison, the Practical Nursing program was started at the Central Michigan Community Hospital in Mt. Pleasant, and the vocational and technical courses were conducted at the Area Vocational School in Mt. Pleasant. Temporary facilities for the library and audiovisual materials were obtained from the Harrison Public Library. On September 15, 1969, the first classes were moved to the present campus location and on November 24, 1969, all of the remaining classes were moved.

Construction of the Food Service/Student Center was completed in 1972; the Goldberg Orientation Center, which housed the College’s child care facilities, and a small engine repair building were added in 1973; the allied health facilities and the Automotive Technology Center were completed in 1976; and the Climate Control Center was constructed in 1979. Construction of the Technical Trades Center began in the Fall of 1982 and the facility opened for classes in the Fall of 1983.
In December of 1993, the College purchased a three story modern office building in Mt. Pleasant. The building was converted to a striking campus facility on an attractive site during 1994. The Mt. Pleasant Campus serves the Isabella County area.

In the Fall of 1998, the College opened an extensive expansion with improvements on the Harrison Campus, adding new science and health education facilities.

In the fall of 1999, MMCC was granted funding for an M-TEC Center, one of Governor Engler's initiatives to serve business and industry and community colleges. The Center opened its doors in the Fall of 2001, and provides open-entry/open-exit training for employees and potential employees of industrial and construction trades.

Since the College opened its doors to 196 students in the Fall of 1968, it has experienced a pattern of constant growth and is now serving more than 5,000 students annually on both a full-time and part-time basis. All College facilities are barrier-free and accessible to handicapped persons.

ACCREDITATION

Mid Michigan Community College is approved by the Department of Education of the State of Michigan and is Accredited by The Higher Learning Commission and a member of the North Central Association, 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504, 1 (800) 621-7440, www.ncahigherlearningcommission.org

The College also holds membership in:

- American Association for Higher Education
- American Association of Community Colleges
- Association of Community College Trustees
- Community College Consortium, U. of M.
- Consortium Eight (Northern Michigan Community Colleges)
- Council of North Central Community Jr. Colleges
- Michigan Community College Association

To view or obtain copies of MMCC accreditation and licensing documents, contact the Office of the President at (989) 386-6601. Written requests may be mailed to 1375 S. Clare Avenue, Harrison, MI 48625.

EQUAL OPPORTUNITY AFFIRMATIVE ACTION

Mid Michigan Community College is an equal opportunity/affirmative action institution and complies with all federal and state laws and regulations prohibiting discrimination. It is the policy of Mid Michigan Community College that no person shall be discriminated against, excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination on the basis of race, color, religion, national origin or ancestry, age, sex, marital status, arrest record, physical characteristics, or physical limitations in its academic and vocational programs, activities, admission, financial assistance, or employment.

A complainant shall: consult with the Affirmative Action Coordinator who shall resolve the complaint, or assist the complainant in compiling the formal complaint, and in referring it to the Antidiscrimination Judicial Board whose members shall resolve the complaint with the Decision and Order; appeal, if desired, the Decision and Order by presenting the case to the Board of Trustees for the final College decision on the matter.

The Affirmative Action Coordinator is the Director of Human Resources and can be reached at Mid Michigan Community College, 1375 S. Clare Avenue, Harrison, MI 48625; or by phone at (989) 386-6606.

AMERICANS WITH DISABILITIES ACT

State and federal laws prohibit discrimination against individuals with disabilities. Mid Michigan Community College’s Office of Human Resources coordinates the College’s compliance with these state and federal non-discrimination laws, including the Federal Vocational Rehabilitation Act of 1973, the Federal Americans with Disabilities Act, and the amended Michigan Handicappers Civil Rights Act. The Office of Human Resources is also the grievance office designated to handle any complaints or concerns regarding the College, its programs, procedures or employees. If you believe that a violation or potential violation of these state or federal non-discriminating laws has occurred, is occurring, or will occur, please notify the Office of Human Resources, Mid Michigan Community College, 1375 S. Clare Avenue, Harrison, MI 48625; or by phone at (989) 386-6606.
Held on the Harrison Campus Since 1993 the Sunday following Labor Day

Over $200,000 raised for Scholarships and Grants
II. COLLEGE SERVICES AND PROCEDURES

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Assessment and Advising ............................................................................................................ 14
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Support Services ....................................................................................................................... 34
Student Activities ...................................................................................................................... 36
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“OPEN DOOR” ADMISSIONS POLICY

Mid Michigan Community College has an “open door” admissions policy which encourages admissions of all persons, regardless of age or educational background, who have a sincere desire to study and apply themselves so as to gain full advantage of the benefits the College has to offer. Persons planning to transfer to four-year colleges or universities should be aware that a high school diploma or GED will be required by the transfer institution. Persons applying for financial aid must have a high school diploma, a GED, or documented proof of their ability to benefit from their education program. Applicants for all allied health programs must have a high school diploma or a GED.

ADMISSIONS PROCEDURES

Applicants who have never attended another college or university:

1. Complete and return an Application for Admission. This may be obtained from high school counselors or from the Admissions Office on the Harrison Campus or Mt. Pleasant Campus. This form should be completed and returned to the Admissions Office well in advance of the semester for which the student is applying in order to allow time for assessment, orientation, academic advising, and class reservations.

2. Have forwarded to the Admissions Office a copy of the high school transcript or GED completion.

Guest Applicants:

Complete and return a Michigan Uniform Undergraduate Guest Application. This may be obtained from the Admissions Office on either campus or the Admissions Office of the home university or college one is attending. This form should be completed and returned to the Admissions Office well in advance of the semester for which the student is applying in order to allow time for assessment, orientation, academic advising, and class reservations. Guest students are not eligible for Title IV Federal Student Aid.

Transfer Applicants:

1. Complete and return an Application for Admission. This may be obtained from the Admissions Office on either campus. This form should be completed and returned to the Admissions Office well in advance of the semester for which the student is applying in order to allow time for assessment, orientation, academic advising, and class reservations.

2. Have forwarded to the Admissions Office official copies of transcripts from all other colleges and universities attended.

Readmission

Former Mid Michigan Community College students who have withdrawn from classes or who have not returned for one or more semesters may be readmitted. Official copies of transcripts from other colleges or universities attended during the interim should be forwarded to the Dean of Student Services.

Dual Enrollment Program

This program is designed for high school students whose personal and intellectual maturity suggests that they are ready for college-level work. The students may enroll in Mid Michigan Community College courses while still attending high school or they may attend College during the summer session. The academic credits they earn will apply toward an associate degree and will transfer to most Michigan colleges and universities.

Students wishing to enroll in this program must have a letter signed and dated by their high school principal or the principal’s designee stating that they have approval for admission.

Students who would like to qualify for the State of Michigan dual enrollment tuition reimbursement should first check with their high school to determine eligibility and then contact the MMCC Admissions Office. Dual enrolled students are not eligible for Title IV Federal Student Aid.

Applicants for Health Programs:

1. Admission into all health programs is limited due to the number of clinical spaces available. Normally, the number of students admitted into the health programs are:

   - Level I Nursing (Practical Nursing): 70
   - Level II Nursing (ADN & StepUp): 60
   - Level II Nursing Part-Time (ADN): 20
   - Radiography: 24
   - Medical Assistant: 25

   The number of students admitted is subject to change based on the availability of clinical spaces.

2. Admissions Criteria:

   a. Nursing Program: Students are admitted based on completion of required prerequisite courses, an overall GPA of 2.0 or higher and earliest program application date when compared with other candidates making application at the same time. Students are encouraged to complete all general education courses required on Level I for LPN students and Level I and II for ADN students before entering the program.
b. **Radiography Program**: Admission is based on application to the program and completion of prerequisite courses. Upon admission to the program, students undergo training in Medical Terminology, Anatomy and Physiology, Chemistry, Computer Information Systems, English, and Basic Algebra. Upon successful completion of prerequisite courses, radiography program students undergo a two year sequence of classroom, laboratory, and clinical education classes. Graduates receive an Associate in Applied Science Radiography degree and are eligible for the American Registry of Radiologic Technologists certification examination.

c. **Medical Assistant Program**: Admission is based on application to the program, completion of OIS 140 (Beginning Word Processing/Keyboarding) or competency, and a conference with the Dean of Nursing.

3. All students admitted into health programs must attain grades of "C" or better in all courses required to complete the program except as follows: For Nursing and Radiography, BIO 141 & BIO 142 must be passed with a "B-" or better. The Medical Assistant program students must attain grades of "C-" or better in all OIS courses while all other grades must be grade "C" or better. If students have taken science courses prior to admission into a specific health program, the courses must have been completed within five years of the date the student formally begins the program.

For further information about any health programs, contact the Admissions Office.

**AGE ENROLLMENT POLICY**

MMCC offers special programs for children. However, it is the College policy that students under the age of 16 are not permitted to enroll in traditional college credit classes unless a parent or guardian enrolls in the same class.

**ENROLLMENT POLICY FOR PHYSICAL EDUCATION CLASSES**

No person under the age of 14 may enroll in any physical education classes except youth ski classes. Persons between the ages of 14 and 16 will be allowed to enroll in physical education classes only if a parent or guardian enrolls in the same class section and participates. If the parent or guardian is unable to attend class, the ward will not be allowed to participate in the class activities. If the parent or guardian withdraws, the ward will be institutionally dropped from the class. Persons 16 years of age and over may enroll in any physical education classes.

**International Student Admissions**

1. The Application for Admission must be filled out completely and returned at least six months prior to the semester the student plans to attend.

2. All records of any previous schooling (mark sheets, transcripts, and any documents indicating graduation) must be submitted as official documents issued directly from the institution concerned. They must show course work and grades and must be translated if the originals are not in English. The originals should also be included. Credentials should not be forwarded to the College through relatives or friends in the United States.

3. International students will be required to take either the TOEFL (Test of English as a Foreign Language) or the Michigan Test if English is NOT the native language of the student. They must achieve a minimum score of 550 on the written TOEFL or 213 on the computer-based test or a minimum score of 80% on the Michigan Test. If they do not achieve these scores, they must attend a language center in the U.S. for intensive English study. A minimum score of 80% must be achieved at the language center before admission is granted.

4. International students must demonstrate ability of financial responsibility prior to acceptance into the College. A certified bank statement from a local bank must accompany the application documenting the ability to cover one full year of residency at MMCC. Admission will not be complete until an appropriate certified bank statement is submitted (aprx. $11,000).

5. All international students must carry an approved medical insurance program to cover major medical expenses.

6. Upon admission to MMCC, an I-20 form will be issued to obtain the necessary F-1 Visa.

7. The College will apprise the students of the fact that there is no housing available. The College assumes no responsibility for student housing for any students.

8. International students will be admitted only in the fall semester with few exceptions. Students must be full-time to remain in status.

9. International students will pay the out-of-state tuition rates. International students are not eligible for Title IV Federal Student Aid.
ADVANCED CREDIT OPTIONS

ADVANCED CREDIT

Advanced credit indicates that credit will be received without enrolling in the course provided the student demonstrates expertise as evidenced by successful completion of an equivalent high school course. A per "Billable Hours" recording fee will be charged at the time of transferring the advanced credit, please contact the Business Office for more information on applicable fee.

ADVANCED PLACEMENT PROGRAM

College course credit will be granted to students who participate in the Advanced Placement Program (APP) and pass the Advanced Placement examinations with a score of 3 (qualified), 4 (well qualified), and 5 (extremely well qualified) in College approved APP exams. Only those APP courses approved by MMCC faculty will transfer in as MMCC credit. APP exam scores should be sent directly to the Dean of Student Services.

The APP exams measure the college level learning experience that takes place in a high school AP course, honors class, an intensive regular course, or an independent study. Grade comparability studies in various AP subject examinations have compared to college student’s performance in similar courses.

ARTICULATION

Based on mutual concern for the needs of the students pursuing occupational programs and in an effort to provide a continuing articulation that builds on past learning experiences and eliminates unnecessary duplication of instruction, high school students successfully completing career/technical training may receive college credit through articulation.

Articulation credit at Mid Michigan Community College may be applied for in the following programs: Automotive, Early Childhood Education, Drafting & Design, Graphic Design, Welding, Machine Tool, Heating, Refrigeration & Air Conditioning, Office Information Systems, Accounting, Business, Health Education, and Computer Information Systems. High school students interested in applying for articulation credit should make an appointment with their high school counselors or Mid Michigan Community College’s Admissions Office. The tuition for credit(s) articulated is waived. A per "Billable Hours" recording fee will be charged at the time the articulated credit is recorded, please contact the Business Office for more information on applicable fee.

CREDIT BY EXAMINATION

The student will then pay the cashier a set fee ($15 per credit for general education courses and $20 per credit for non-general education courses) to cover testing costs, and Student Educational Services will make the necessary arrangements for the examination. Students after taking the College Board APS Assessment or the MMCC Math Placement Test who are placed in MAT 104 or above, will be given a one time opportunity to take the General Education Credit by Examination for MAT 101 free of charge. Those students placed in MAT 101 may opt to take Credit by Examination for a fee. It should be clearly understood that the student will receive credit upon successful completion of the exam and not a grade for the class in which the examination is taken. Students should be advised that MMCC Credit by Examination is unlikely to transfer to another college.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

It is possible for Mid Michigan Community College students to earn academic credit toward program completion through the College Level Examination Program (CLEP). Credit will be given for (CLEP) General Examinations in the mathematics and humanities provided the scores are at or above the 50th percentile. Credit will be given for all CLEP Subject Area Examinations provided they apply to the student’s declared program of study and provided the scores are at or above the 50th percentile.

Students should have their CLEP scores sent directly to the Dean of Student Services. Transfer students should also have their original scores sent, since CLEP credit will not be given to a transfer student on the basis of inclusion on another institution’s transcript.

MILITARY TRAINING CREDIT

All veterans having a certified DD Form 214 on file in the Office of Enrollment Services will automatically be given credit for two semester hours of physical education and three semester hours of health and hygiene. Veterans who feel that other training received in the military is applicable to their program of study may request that such training be evaluated for credit. The veteran must produce proper documentation and the documentation will be evaluated by the Dean of Student Services based on the American Council on Education credit recommendations. Veterans planning to transfer from Mid Michigan Community College to another institution should be aware that the institution will not necessarily accept the credit for military training given by the College, but will usually wish to reevaluate the training documentation.

NON-TRADITIONAL CREDIT

Students possessing educational experiences or skills gained through non-traditional sources such as military courses, work experience programs, life experience, and so on, may request that such experiences be evaluated for credit. The student must provide proper documentation and that documentation will be evaluated by the Dean
of Student Services. A $20 per credit hour recording fee will be charged at the time the non-traditional credit is recorded. Students should be aware that non-traditional credit usually does not transfer to another institution.

TRANSFER CREDIT

Mid Michigan Community College will accept transfer credit from other accredited institutions within the following guidelines:

- An evaluation will only be done from an official transcript. An official transcript bears the appropriate signatures and seals and is mailed directly to MMCC from the issuing institution.
- Courses completed with a “C” grade (2.0) or better will be accepted.
- Courses which are not equivalent to MMCC courses but are in a discipline may be accepted as elective credits.
- Credits, not grades, are transferred for “C” or better courses. Grades from transfer courses are not calculated in the Mid Michigan Community College cumulative grade point average.
- Transfer credits will be shown on the student’s academic record.
- Occasionally courses with less than a “C” average may be accepted at the discretion of the Registrar provided those courses do not conflict with any other program or institutional policies.
- A minimum of one-half of the student’s credits toward a program must be taken at MMCC to be eligible to graduate from MMCC with honors.
- Students who transfer to MMCC after completing a degree at an accredited institution will be given the following exemptions from MMCC’s General Education requirements:
  1. From a Two-Year Institution: Students transferring to MMCC with a two-year degree from an accredited institution will be exempt from 100 Level General Education requirements. 200 Level requirements will be determined in the transcript evaluation process.
  2. From a Four-Year Institution: Students transferring to MMCC with a four-year degree from an accredited institution will be exempt from both the 100 and 200 Level General Education requirements.

Normally, evaluation of transcripts takes four to six weeks after the transcript is received by the Registrar; therefore, students planning to transfer into Mid Michigan Community College should have transcripts from other institutions sent to the College well in advance of the first semester of attendance.

ASSESSMENT AND ADVISING

ASSESSMENT

Mid Michigan Community College uses APS (Assessment and Placement Services) as a placement tool. APS is not an admissions test. It is an assessment that helps students identify their present strengths and needs—information that is necessary for accurate placement in the basic areas of language usage, reading, and numerical skills.

All students in the following categories must complete the APS Assessment prior to registration:
1. New full-time students;
2. New students taking 6 credits or more;
3. New students, not full-time, who will be pursuing a degree or certificate;
4. Students who plan to enroll in a college Mathematics or English course for the first time;
5. Returning students who are on academic probation or academically dismissed;
6. Students who have completed 12 credit hours or more, have not had a college English or Math course at another institution, and have not previously been assessed.

Prospective students having completed the ACT may contact a counselor to waive the MMCC placement test. The ACT scores must be on file at MMCC. Students with ACT scores may be required to complete a writing sample.

ASSESSMENT CENTER

The Assessment Center provides placement testing which assists new students in selecting courses that are neither too difficult nor too easy for them. New students are expected to take placement tests before orientation to assist in academic advising.

In addition to the placement tests, the center also provides assessment relating to career exploration activities. Students who are undecided about a career are strongly encouraged to visit the center for assistance.

Assessment relating to career exploration activities is also available to non-MMCC students for a modest testing and interpretation fee.

The center is normally open from 8:00 a.m. until 4:30 p.m. Monday through Friday, with some evenings scheduled throughout the academic year.
ORIENTATION

All students new to Mid Michigan Community College taking 6 or more credit hours are expected to attend an orientation session before their first registration. During orientation, students are informed about important policies and procedures, given information about services available, and receive academic advising in selecting their first semester courses.

Before orientation, all students new to MMCC taking 6 or more credit hours are expected to attend a placement assessment session or have approved ACT test results on file at MMCC.

ACADEMIC ADVISING

Academic advisors are available to students throughout the academic year and between sessions. They are trained to assist students on a one-to-one basis with career selection, program planning, course reservations, and to provide counseling for students experiencing academic difficulties. New students are generally advised by a licensed counselor and returning students have the option to work with an assigned faculty advisor in their field of study. Returning students may see an advisor at scheduled times during each course reservation period to set up a class schedule. Appointments may also be made with academic advisors by stopping in or telephoning the Counseling Center on the Harrison Campus, or at the main desk on the Mt. Pleasant Campus, or setting up an appointment with the faculty advisor. Normally advisors are available 9:00 a.m. until 6:00 p.m. Monday through Thursday and 9:00 a.m. until 4:30 p.m. on Friday throughout the fall and winter semesters. Hours are posted between sessions. Faculty advisor's availability varies each semester and session.

The following students are required to see an advisor prior to registration:

1. All full-time students who have accumulated less than 24 MMCC credits (as displayed on the transcript).
2. Students enrolling in entry level English or math courses (exempted: students who have Assessment scores noted on the data base).
3. Undecided full-time students.
4. Students changing programs.
5. All academic probation or reentering academically dismissed students.

MMCC is committed to helping all students with academic advising needs. Any student who needs assistance or has a question is encouraged to see an academic advisor.

CAREER PLANNING

Career planning activities are designed to assist students who are undecided at the time of registration or who are considering changing career plans during their enrollment period. Career planning assistance is provided through career planning classes or with the Assessment Center counseling staff. The center has a variety of career assessment instruments designed to assist with career decision making. Activities are centered around career assessment and exploration designed to provide an organized career selection process.

PERSONAL COUNSELING

Personal counseling is available on a limited basis. The College maintains a list for referral to local crisis centers and mental health clinics qualified and available for personal counseling. Personal counseling is helpful in situations where problems are persistent and bothersome to the point that another person is needed to discuss the situation. For information, contact the Counseling Center.

ENROLLMENT SERVICES

REGISTRATION

Registration at Mid Michigan Community College begins by 1) seeing an academic advisor, 2) registering for the course, and 3) securing the registration by paying the required enrollment fee(s) the day of registering. All students must complete the process by paying tuition in full or activating a financial aid approved charge by the published date in the class schedule.

Returning students may opt to register by telephone or on a walk-in basis. The first week of each registration period permits students to register based on the number of MMCC credits earned. All returning students may register by telephone. New students see an advisor and register during orientation with the exception of those new students taking very limited course work of 6 credits or less (they may register by telephone or walk-in).

Students who register during the late registration period will pay the full Enrollment Fee and tuition the day that they register. Advisors are available during the late registration period. Since class selection is more limited, students are advised to register earlier. The late registration period is listed in the course schedule.

Full information regarding tuition and fees is given in the section, “Cost of Attending College.”

STUDENT CREDIT HOUR LOAD

The normal credit hour load for a full-time student consists of 15-17 semester credit hours, including physical education. A student may not elect more than 17 semester credit hours without prior special permission from the Director of Counseling/Advising. A request to enroll for 20 or more semester credit hours must also be approved by the Vice President of Academic Services.

Twelve or more credit hours are considered full-time, 9-11 credit hours are considered three-quarter-time, and 6-8 credit hours are considered half-time.

Students earning 0 through 23 credit hours are designated as “freshmen”; students earning 24 through 62 credit hours are designated as “sophomores”; students earning 63 or more credit hours are designated as “other”.
HONORS SECTION
Students with a minimum of a 3.0 GPA may elect to register for a course in the honors section. Honors classes are intended to challenge highly motivated and academically talented students. Permission of instructor is required.

HONORS OPTION
Students may apply to take a course with an honors option. The student meets with the instructor one additional hour per week in addition to the regularly scheduled class. The student and the instructor will develop an extra project together. Such options will also be marked “Honors” on the student’s transcript. Only a minimum number of honors options will be permitted each year. Students interested in this option should contact both the individual instructor and the Honors Program Coordinator, and must apply and be approved prior to the beginning of the semester the honors option will be taken.

ADDING COURSES
Students may add courses to their schedule after registration by completing the Add Form obtained from the Office of Enrollment Services. A course may be added without permission of the instructor during the late registration-drop/add period. After this period of time, written permission of the instructor must be obtained.

DROPPING COURSES
Students may drop classes from their schedules after registration by completing a Drop Form obtained from the Office of Enrollment Services. Refund of tuition will be based on the Tuition Refund policy found in “The Cost of Attending College.” If courses are dropped after the official enrollment period and before the last week of the semester, a grade of “W” is assigned with no grade point average penalty and appears on the transcript. If classes are dropped during the last half of the total of class sessions, permission of the instructor must be obtained and the signed Drop Form must be submitted to the Office of Enrollment Services.

The instructor may give permission to withdraw or may refuse such permission. If permission is given, the instructor will assign a grade of “W” (Withdrawal) or may assign a grade of “A”, “B”, “C”, “D”, or “F”. If permission is refused, the instructor will assign a letter grade of “A”, “B”, “C”, “D”, or “F” at the end of the semester or session. All such grades appear on the transcript.

Dropping courses must be initiated by the student through the Office of Enrollment Services and may be initiated throughout the semester with the EXCEPTION of the last week. Students may not drop courses the last week of the semester. Students who stop attending a class but do not initiate a drop will be given a letter grade, not a withdrawal grade, by the instructor at the end of the semester or session. Students receiving financial aid should check with the Financial Aid Office to see if dropping a course will affect their aid amount.

AUDITING A COURSE
A course in which a student enrolls for no grade and no credit is regarded as an Audit. Permission of the instructor must be obtained and the regular tuition and fees paid. Audited courses are not computed into the GPA and do not count toward graduation. A course cannot be changed from audit to credit or from credit to audit after the official drop/add period is over.

REPEATING A COURSE
When a course is repeated for the purpose of improving a grade, the lower grade with its credit hours and points will be removed from the existing GPA; the higher grade with its credit hours and honor points will be computed into the GPA. The Grade Point Average (GPA) is found by dividing the total honor points earned by the hours attempted. Credit cannot be earned more than once for any given course. An equivalent course taken at another institution will not remove the MMCC equivalent from the MMCC transcript.

SAME COURSE RE-ENROLLMENT
In an effort to avoid potential same course re-enrollment abuse, the following conditions apply:

1. Regardless of grade(s) earned in a course(s) previously, a student will be allowed to re-enroll for this same course for a second time without conditions unless it is in a restricted enrollment program which requires written approval to re-enroll by the program director.

2. Regardless of grade(s) earned in course(s) previously, a student will not be allowed to re-enroll for a course for a third time unless A) the re-enrollment request is written by the student and has B) the written support of a counselor and C) Dean of Students (or appointed representative) and D) is approved by the program director if this course is in a restricted enrollment program.

3. For a student to be allowed to re-enroll in a course for a fourth time the student must make a request in writing and receive all the approvals required in 2 above, plus the written approval of the Vice President of Academic Services (or appointed representative).

4. For a student to be allowed to re-enroll in a course for a fifth time (or more) the student will make a written request and receive approvals of all required in paragraph 3, plus agree in writing to pay the complete course cost explained below.

In-District Student:
In-District Tuition X 3 + all Fees = Total Cost*

Out-District Student:
Out-District Tuition X 3 + all Fees = Total Cost*

* The purpose for requiring three times the tuition is to ensure the student pays the total course cost thus, freeing the local and state taxpayers of any financial contribution.
WITHDRAWING FROM COLLEGE
Students who withdraw totally from the College other than at the end of a semester or session must initiate formal withdrawal procedures with the Office of Enrollment Services to claim any possible refunds and avoid the posting of failing grades for all courses not completed. Students who receive Title IV Federal Student Aid funds and withdraw totally prior to completion of 60% of a semester or session may have to repay a portion of the aid they received. Please see Return of Title IV Funds Policy on page 29.

INDEPENDENT STUDY COURSE WORK
A student may, at the discretion of the instructor, register for course work independently. All independent study course work must be approved by the appropriate Instructional Administrator.

CHANGE OF PROGRAM
At the time of application, the student is required to declare a program and is given a student program guide to follow, which outlines all courses required for completion of the degree or certificate. If a student decides to change his/her program of study, the Office of Enrollment Services must be notified and a new student program guide should be picked up to assure that the student completes the necessary courses required on the new program.

FINANCIAL AID
Mid Michigan Community College, in conjunction with federal and state programs and private and civic organizations, offers a variety of scholarships, grants, loans, and employment opportunities to assist students in financing their education.

No student should hesitate to apply for admission because of financial circumstances. Approximately 65% of all Mid Michigan Community College students carrying 6 credits or more receive some form of financial assistance. The purpose of financial aid is to make it possible for students of all degrees of financial capability to pursue their educational goals.

The following information is provided to inform prospective and current students of the various alternatives available.

HOW FINANCIAL NEED IS DETERMINED
Need is determined by subtracting a student’s expected family contribution from the student’s school budget. If the Financial Aid Office considers the student eligible for assistance from a source other than the College, it subtracts the estimated amount of this assistance from the student’s estimated total financial need.

Expected Family Contribution: In determining a student’s eligibility for need-based assistance, the College considers the appropriate contributions from the student, student’s spouse, and from the parents of the student if the student is not independent.

The information provided in the Free Application for Federal Student Aid (FAFSA) is used to determine a fair contribution from each family taking into account the family’s income and some net assets, the number of dependents, and other factors.

The office uses federally required and approved computation analysis guidelines and, if necessary, makes adjustments.

FINANCIAL AID ELIGIBILITY FOR FEDERAL & STATE AID PROGRAMS
To be eligible for federal and state gift aid, employment and loan programs, students must meet all of the following requirements:

• be admitted to or enrolled in an academic program leading to a degree or certificate;
• be a U.S. citizen or National, permanent resident or have other qualifying status;
• all adult males between the ages of 18-26 years of age must be registered with Selective Service (if required to register) and sign statements of compliance;
• not be in default on any loan program or in over-payment status on any federally funded aid program at any college or university;
• have a high school diploma, a GED or have the ability to benefit;
• establish and maintain satisfactory academic progress;
• meet any additional requirements established for specific federal and state programs.
• have financial need, except for some loan programs;
• have a valid social security number;
• sign a statement on the Free Application for Federal Student Aid (FAFSA) certifying that you will use federal student aid only for educational purposes.

Conviction for drug distribution or possession may make a student ineligible for aid. Contact the Financial Aid Office for additional information about these requirements.

FINANCIAL AID PACKAGE
Normally, the financial aid package consists of a combination of gifts (scholarship and grant) and self-help (job or loan) aid. The proportion is determined annually.

Students receiving need-based assistance who have also been awarded non-need-based scholarships will have the scholarship funds included in the financial aid package.
HOW TO APPLY FOR FINANCIAL AID

The student must submit the Free Application for Federal Student Aid (FAFSA). This application can be submitted over the internet using FAFSA on the web at www.fafsa.ed.gov, or by mailing the proper FAFSA directly to the federal processor.

These forms may be obtained from either a high school counselor or the College Financial Aid or Admissions Offices.

The Financial Aid Office will give priority to students who submit all required documentation by June 1. These students may expect to complete their registration process by charging tuition costs against their estimated financial aid.

Students who submit documentation after June 1 should plan on paying tuition costs from their own funds but will receive any financial aid monies for which they are eligible after all processing is complete.

Please note several types of federal and state funds are limited. Therefore, students who apply early will be given priority when those funds are awarded. Mid-year transfer students who apply for federal aid must change their school code with the Department of Education before aid can be processed.

Most College awards are made for a period of one academic year only. Reaplication must be made each year. There is limited financial aid available for the spring and summer sessions.

The Financial Aid Office reserves the right to request income and asset verification of financial statements submitted for need-based aid. Failure to provide the requested information will result in cancellation of award action. Falsification of income information submitted for the purpose of receiving financial assistance will result in cancellation of all future assistance and repayment of all prior assistance received falsely. If federal and/or state funds are involved, notification of the false information will be provided to the proper agencies (U.S. Office of Education and/or Michigan Higher Education Assistance Authority) for their future disposition.

CHANGES IN AWARDS

The Financial Aid Office notifies students of the types of aid for which the student is eligible and provides estimated amounts of aid in their award letters. It may, however, be necessary for the College either to increase or decrease the award if changes occur in enrollment status, family financial status, or the student’s own financial resources or expenses.

Changes in enrollment status include reduction of the credit hour load or withdrawing from the College before the end of the semester. Such changes normally will result in reduction or cancellation of assistance. Students should consult the Financial Aid staff before making a change of this type.

Changes in family financial status include significant discrepancies between resources described in the FAFSA and those reported in the federal income tax return and unanticipated family financial reverses lasting longer than three months. Students should consult the Financial Aid staff if changes of this nature occur.

Changes in student resources include receipt of educational benefits such as Social Security, Veteran’s benefits, and receipt of awards in amounts that differ from estimates stated in the award announcement or that were not included in the announcement. Students must report receipt of additional resources not considered in the original package.

Changes in student expenses, such as medical or emergency expenses, may be experienced by some students. If expenses change, students should discuss their budget with a financial aid officer. It may be possible to adjust the self-help portion of the award to recognize additional allowable expenses.

STANDARDS OF SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID Recipients

To receive financial aid, students must maintain satisfactory academic progress toward their degree or certificate. The Mid Michigan Community College (MMCC) Standards of Satisfactory Academic Progress govern all federal and state financial aid, grant, loan, and workstudy programs. Financial Aid Student academic records are reviewed each semester for satisfactory academic progress.

There are 3 Elements in the MMCC Standards of Satisfactory Academic Progress:

1. The grade point average (GPA) students must maintain;
2. The number of credit hours students must complete each semester; and
3. The maximum credit hours for which students may receive financial aid.

Element 1

Students must maintain a grade point average (GPA) of a 2.0 or above on a cumulative basis.

Element 2

Students must satisfactorily complete two-thirds of attempted credit hours each semester rounded up to the nearest number as defined in the semester completion table below.

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<thead>
<tr>
<th>Semester Completion Table</th>
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<tr>
<td>Enrolled Credits</td>
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<td>11 - 12 +</td>
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<tr>
<td>10</td>
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<td>3 - 5</td>
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Element 3

Federal Regulations state that a student can not receive Title IV funds for more than one and one-half times the required credit hours needed to complete a specific degree or program. In other words, if an Associates Degree normally takes 64 credit hours to complete, a student can not attempt more than 96 credit hours toward that degree and still receive aid (64 x 150% = 96).

Attempted credit hours include incomplete, withdrawals, repeated, and remedial courses and transfer credits.

FINANCIAL AID ACADEMIC PROBATION

Student financial aid recipients will be placed on probation the first time they do not meet the Satisfactory Academic Progress criteria. Students will be allowed one probationary semester of assistance to meet the requirements of Elements 1 and 2.

Students who do not meet the requirements of Elements 1 or 2 after one semester of probation will have aid eligibility suspended. The reinstatement or appeal process described below may be used to regain financial aid eligibility.

REINSTATEMENT

Students can have their financial aid reinstated by attaining the minimum cumulative grade point average and semester credits earned requirements (See Elements 1 & 2). Students seeking reinstatement must then advise the Financial Aid Office in writing that they meet the requirements.

APPEALS

A. Students who have been suspended from financial aid for failure to meet Standards of Academic Progress have the right to appeal. All appeals must be submitted in writing on the Satisfactory Academic Progress Appeal Form to the Financial Aid Office. Students submitting appeals should state the reasons why satisfactory progress was not made and discuss actions that have been or will be taken to meet satisfactory progress requirements in the future. Documentation supporting the reasons for the appeal must be attached. Appeals submitted without documentation will not be considered. Mitigating circumstances beyond the control of students, such as injury, illness, death of an immediate family member, or other special circumstances may be grounds for successful appeals.

If appeals are approved, students will receive one additional semester of aid. During this semester students must:

1. Meet the MMCC Standards of Academic Progress (Elements 1 and 2);
2. Complete all courses in which they register with grades of C (2.0) or better (no C-, D+, D, E or NC grades), with no withdrawal (W), and no Incomplete (I) grades. Students meeting this criteria will continue on probationary status until the student meets the MMCC Standards of Academic Progress.

Students who fail to meet these requirements will have aid eligibility suspended.

B. If the first appeal is not resolved to the satisfaction of the student, a second appeal may be made in writing to the Director of Financial Aid, who will convene the Financial Aid Advisory Committee to review the second appeal. The Director will inform the student of the Advisory Committee’s decision within ten business days. The Committee’s decision will be final.

1. The Financial Aid Advisory Committee is made up of the following membership:
   - Dean of Student Services
   - Financial Aid Director
   - Financial Aid Officer
   - Admissions Office Representative
   - Faculty Member

   A minimum of three members is required to review a student appeal.

DISBURSEMENT OF AWARDS

Financial aid monies from scholarships, grants, and loans are usually divided in half and credited directly toward the semester bill. If there are more credits than charges, a check will be issued to the student for the balance. It is the student’s responsibility to verify the accuracy of the billing charges and credits and remaining aid balance.

The availability date of remaining balance checks varies, but they are disbursed prior to the end of each semester. Students should plan to have sufficient funds for meeting their expenses until checks are available. These checks are disbursed through the College Business Office.

STATEMENT OF STUDENT FINANCIAL AID RIGHTS AND RESPONSIBILITIES

Rights of Financial Aid Applicants

1. You have the right to know what financial aid programs are available.
2. You have the right to know the deadlines for submitting applications for each of the financial aid programs available.
3. You have the right to know how financial aid will be distributed, how decisions on that distribution are made, and the basis for these decisions.
4. You have the right to know how your financial need was determined.

5. You have the right to know what resources (such as parental contribution, other financial aid, your assets, etc.) were considered in the calculation of your need.

6. You have the right to know how much of your financial need as determined by the institution has been met.

7. You have the right to request an explanation of the various programs in your student aid package.

8. You have the right to know the MMCC refund policy.

9. You have the right to know what portion of the financial aid you received must be repaid, the payback procedures, the length of time you have to repay, and when repayment is to begin.

10. You have the right to know how MMCC determines whether you are making satisfactory academic progress and what happens if you are not.

For an explanation of any of the above rights, please review the information in this catalog or come in to the Financial Aid Office and meet with a Financial Aid Representative.

Responsibilities of Financial Aid Applicants

1. You must complete all application forms accurately and submit them on time to the right place.

2. You must provide correct information. In most instances, misreporting information on financial aid application forms is a violation of law and may be considered a criminal offense which could result in indictment under the U.S. Criminal Code.

3. You must return all additional documentation, verification, corrections, and/or new information requested by either the Financial Aid Office or the agency to which you submitted your application.

4. You are responsible for reading and understanding all forms that you are asked to sign and for keeping copies of them.

5. You must accept responsibility for all agreements that you sign.

6. You must perform the work that is agreed upon in accepting a Work Study job.


8. You are responsible for reporting the type and amount of any assistance you have received from any source outside of your MMCC aid.

MID MICHIGAN COMMUNITY COLLEGE AID PROGRAMS

President’s Scholarship: These scholarships are awarded to the Valedictorian or Salutatorian of the senior class provided their overall high school GPA is 3.5 or better. Students should apply for these scholarships through their high school counselor. Recipients must maintain full-time status (12 credits or more) and a MMCC GPA of 3.5 to receive tuition and fees credit. The President’s Scholarship is renewable for a total of two years (a total of four semesters and two summer sessions), and must be used for the semester for which it is awarded and cannot be held for attendance in a different semester.

Eugene W. Gillaspy Honors Scholarships: These $600 scholarships ($300 per semester) are offered to any high school senior whose cumulative GPA is 3.5 or higher. Students should apply for these scholarships through their high school counselors. To retain the scholarships, the students must attend Mid Michigan Community College on a full-time basis (12 or more credit hours) and must maintain a cumulative GPA of 3.5 or higher. The Gillaspy Scholarships are non-need-based and must be used for the semester for which they are awarded and cannot be held for attendance in a different semester.

Mid Michigan Community College Trustees’ Scholarships: Recipients of these $400 scholarships ($200 per semester) are nominated by the scholarship committees of their high schools from each year’s graduating classes. To be eligible, the student must have a cumulative high school GPA of 3.0 to 3.5. Students should apply for these scholarships through their high school counselors. To retain the scholarships, the student must attend Mid Michigan Community College on a full-time basis (12 or more credit hours) and must maintain a cumulative GPA of 3.0 to 3.5. These non-need based scholarships are renewed on a semester-by-semester basis to a maximum of four semesters and must be used for the semester for which they are awarded and cannot be held for attendance in a different semester.

Mid Michigan Community College Admissions Awards: These $250 awards ($125 per semester) are offered to high school seniors whose GPA’s are between 2.0 and 3.0 thus making them ineligible for scholarship assistance, but who show potential to profit from a college education based on the recommendation of their high school counselor and two of their instructors. Application for these awards is made through the College Admissions Office and the number offered is based on the availability of funds. To retain these awards, the students must attend Mid Michigan Community College on a full-time basis (12 or more credit hours) and must maintain a cumulative GPA of 2.0 or higher. These awards are renewed on a semester-by-semester basis to a maximum of four semesters. The MMCC Admissions Awards must be used for the semester for which they are awarded and cannot be held for attendance in a different semester.
Mid Michigan Community College Technical Education Awards: These $500 awards ($250 per semester) are offered to individuals who have graduated from high school and attend Mid Michigan Community College within two years of graduating. Students must be enrolled as full-time (12 or more credit hours) students in any of the following programs: Automotive; Heating, Refrigeration & Air Conditioning; Drafting & Design/CAD; Graphic Design; Machine Tool; Office Info Systems; or Welding. This award can be used for tuition, fees and books. Students must have a 2.0 or higher GPA to receive the award, and if a 3.0 GPA is maintained after the first year, students may receive the award for an additional year.

Mid Michigan Community College Adult Education Trustees’ Award: Recipients of these $300 scholarships ($150 per semester) are nominated by the Adult Education Director. To be eligible, the student must have a GPA of at least 3.0. Students should apply through their Adult Education Office. To retain the scholarships, the student must attend Mid Michigan Community College on a full-time basis (12 or more credit hours) and must maintain a cumulative GPA of 3.0. These non-need-based scholarships are renewed on a semester-by-semester basis to a maximum of four semesters and must be used for the semester for which they are awarded and cannot be held for attendance in a different semester.

Mid Michigan Community College Scholastic Incentive Scholarship: Students are eligible for $250 scholarships after completing a semester at full-time status (12 or more credit hours) with a cumulative GPA of 3.50 through 3.89; or are eligible for $400 scholarships after completing a semester at full-time status with a cumulative GPA of 3.90 through 4.00. To receive the scholarship, students must also be currently enrolled full-time in a regular semester. Application for these scholarships must be made each semester through the Financial Aid Office. These scholarships are non-need based, limited to five semesters, and are made possible through financial gifts from friends of the College and the Scholarship & Grant Commission.

Mid Michigan Community College Scholarship & Grant Adult Incentive Award II: This award is to assist adult students who are not served effectively by the Federal Pell Grant Program, but still have a relatively low income and high financial need in the Federal Formula. Most of these students are not coming directly out of high school and therefore have limited opportunities to qualify for traditional scholarships. Awards are made for one academic year and are renewable for one additional year if a student has not completed 60 credit hours. An award of $400 per semester with a maximum of $800 per year will be made to qualifying full-time students. An award of $200 per semester with a maximum of $400 per year will be made to qualifying students attending at least half-time but less than full-time.

Junior High Scholarship: The scholarship is in the amount of $250 and is presented to outstanding Junior High (8th grade) students that will be graduating into high school. This scholarship is in acknowledgment of academic excellence. To achieve this recognition, the honored recipients must have earned a cumulative GPA of 3.5 or better.

Senior Citizen’s Discount Awards: Senior citizens may enroll in any credit or non-credit course offered by the College, except those courses in a program requiring an admissions decision, and receive a 20% tuition discount. To qualify for such a discount, senior citizens must be 62 years of age or older and retired, must have their primary residence in the State of Michigan, and must be participating in U.S. Social Security retirement benefits. Senior citizens must request such a discount at the time of registration. This discount does not apply to fees, books, materials or supplies, trips, or other special events.

STATE OF MICHIGAN AID PROGRAMS

Adult Part-Time Grant: The Adult Part-Time Grant provides grant assistance for needy self-supporting undergraduate students who have been out of high school (other than GED or adult education) for at least two years. Qualifying students must enroll at an approved public or private degree-granting Michigan college on a part-time basis (3 to 11 credit hours). Grants are available for not more than two years of study.

Michigan Rehabilitation Services: Michigan Rehabilitation Services is a division of the Michigan Department of Career Development and provides rehabilitative services to vocationally handicapped or impaired individuals. Any person with an impairment such as an amputation, a cardiac condition, speech problem, deafness, blindness, orthopedic involvements, or epilepsy can make application for service through Michigan Rehabilitation Services. All services provided are individually planned to meet the established need and could include, for example, tuition, fees, books, prosthetic devices, maintenance, or other services that would be required for the completion of a rehabilitation program.

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

Michigan Competitive Scholarships: These scholarships are credited to tuition and fees of Michigan residents of 18 months who are high school graduates, who qualify through a competitive examination, and who show financial need. Awards may be renewed annually for a maximum of four semesters as long as need and at least a 2.0 GPA are maintained.

More information is available from high school counselors and by writing to the Office of Scholarships & Grants, MHEAA, P.O. Box 30462, Lansing, Michigan 48909.
Michigan Educational Opportunity Grant: The Michigan Educational Opportunity Grant provides grant assistance for needy undergraduate students who enroll on at least a half-time basis at public Michigan colleges. The grant is awarded by the Financial Aid Office in accordance with federal and state guidelines.

Michigan Higher Education Assistance Authority Loans: Acts as a guarantee agency and in some cases as a direct lender for the Stafford Loan Program. For details see the Federal Family Educational Loan Program section of this catalog.

Tuition Incentive Program (TIP): The Tuition Incentive Program (TIP) pays college tuition and fees for students from families determined by criteria set by the State of Michigan to be lower-income. Students must apply for and be determined eligible for TIP prior to graduation from high school.

Michigan Work-Study Program: The Michigan Work-Study Program provides work opportunities for needy undergraduate, graduate, or professional graduate students who enroll at approved public or private degree-granting, Michigan colleges on at least a half-time basis.

**FEDERAL AID PROGRAMS**

Federal Pell Grants: Students may apply for Pell Grants by filing a Free Application for Federal Student Aid (FAFSA). Eligibility for Pell Grants is based on financial need as determined by a federal formula applied to all applicants. Currently awards range from $200 to $4,000, but may not exceed 60% of the total cost of attendance. The amount of the award will be affected by costs of attendance and enrollment status. Students must continue to meet the standards of satisfactory academic progress in the program in which enrolled. Students must not owe refunds on Pell Grants or other awards or be in default on repayment of any student loans. Before receiving payment, the student must sign a Statement of Educational Purpose/Registration Compliance Form certifying that all money received will be used for the cost of attendance only.

Federal College Work-Study Program (FCWS): These work opportunities are awarded to students who meet requirements included in the Financial Aid Eligibility section. Job placement extends to most areas of College activity. Every effort is made to refer students to positions compatible with their interest and qualifications, although this is not always possible. Pay rates are commensurate with federal wage guidelines. The number of hours worked per week is limited in order to prorate the award amount a student is eligible to receive over the entire semester. Students are paid once every two weeks for hours worked. Placement of students in FCWS employment is handled through the College Employment Information Office. Application for FCWS is made through the Financial Aid Office.

Federal Supplementary Educational Opportunity Grants (FSEOG): These are federal grants awarded to students with the highest need according to the federal formula. The grants vary from $200 to not more than $1,000 per year for MMCC students. Students must be making satisfactory progress; and meet all other conditions outlined in the Financial Aid Eligibility section to continue receiving the grant. The FSEOG is awarded by the Financial Aid Office in accordance with federal guidelines.

Federal Family Educational Loan Program: These low-interest, educational loans are made by a lender such as a bank, credit union, or savings and loan association. They are insured by the guarantee agency in each state and reinsured by the federal government. You may apply for a Federal Family Educational Loan after the Financial Aid Office has determined any other financial aid for which you may be eligible. These loans are only to be used to finance the cost of education and must be repaid.

Subsidized Stafford Loan: Depending on financial need, first year students may borrow up to $2,625 a year and second year students may borrow up to $3,500 a year. The interest rate on your loan could change each year of repayment but, by law, it will never exceed 8.25%. Interest on a Subsidized Stafford Loan is paid by the Federal Government while the student is in school, during a 6-month grace period following cessation of at least half-time enrollment, and for any periods of authorized deferment after the student begins repayment. Loans will be made in multiple disbursements within the loan period. The lender will deduct up to 4% in fees from each loan check. Students may be entitled to a temporary postponement of payments called a “deferment.” The lender has a complete listing of all authorized deferments and time limitations. (This information is also listed on the promissory note.)

If a student applies for an additional loan, the applications must be made to the original lending institution. Six months after ceasing to be at least a half-time student, the borrower must make formal arrangements with the lending institution to begin repayment. The following regulations apply:

1. The minimum monthly payment will be $50. Under unusual circumstances the lender may permit reduced payments.

2. The maximum standard repayment period is 10 years, however there are other repayment options available for up to 30 years.

3. Repayment in whole or in part may be made at any time without penalty.

Default will occur if the borrower:
1. Fails to make scheduled loan payments; or
2. Fails to meet other terms of the promissory note.
If the student defaults on the loan, the guaranty agency will purchase the loan(s) from the student's lender, add collection costs, report the default to national credit bureaus, and may pursue collection in the following manner:
1. Assign the student's loan to a collection agency;
2. File suit against the student to recover the amount owed, plus court costs and fees;
3. Garnish the student's wages; and/or
4. Withhold federal and state income tax refunds.

A defaulted loan is immediately due and payable in full. Student's credit rating will be adversely affected and may seriously jeopardize chances for qualifying for any future loans (auto, mortgage, etc.) Students who have defaulted on loans will not be eligible to receive any additional Title IV funds (which includes Pell Grants).

Unsubsidized Stafford Loan: This program is for borrowers who do not qualify for a Subsidized Stafford Loan, or who qualify for a Subsidized Federal Stafford in an amount less than the annual federal limit.

By combining both subsidized and unsubsidized loans, borrowers can receive up to their maximum annual Federal Stafford limit.

For independent students or students whose parents cannot borrow under the PLUS program, the amount a student can borrow under the unsubsidized loan program is increased up to an additional $4,000 per year.

An Unsubsidized Federal Stafford loan has all the same terms as the Subsidized Federal Stafford including deferrals and interest rates. The only difference is that the student is responsible for the interest payments while in school, during periods of authorized deferment and during grace and repayment periods. Prior to repayment, this interest may be paid monthly or quarterly if agreed to by the borrower.

PLUS Loan: PLUS loans are for parents or legal guardians, who want to borrow to help pay for their dependent children’s education. The child’s dependency status will be determined by completing a Free Application for Federal Student Aid. Lenders must perform credit checks on PLUS borrowers. Those parents with no adverse credit history are eligible to borrow.

Parents may borrow up to the remaining need of the dependent student (cost minus aid) with no cap. PLUS loans are issued at a variable interest rate. This new rate is adjusted annually but can not exceed 9%.

Checks will be disbursed to the school at equal intervals within the loan period. The lender will deduct up to 4% in fees from the loan check. Repayment on the PLUS loan normally begins within 60 days of disbursement. Repayment terms will be scheduled by the lender and usually extend from 5 to 10 years. In general, the minimum monthly payment is $50.

Eligibility: Students may be eligible for a Federal Family Educational Loan if the student meets the requirements included in the Financial Aid Eligibility section and is enrolled on an least a half-time basis, and maintaining an overall GPA of at least a 2.0.

Applying: To apply for a Federal Family Educational Loan a student must:
1. File a Free Application for Federal Student Aid and provide the college all necessary forms to complete the financial aid file requirements. An award packet will be mailed to the student.
2. Obtain a loan application from a participating lender.
3. Complete the Borrower’s section and submit the application to the Financial Aid Office with required forms.
4. Fulfill all mandated federal and school requirements such as completing an Entrance Loan Counseling session for new borrowers.

If the loan is approved, the borrower will receive a Notice of Loan Guarantee and Disclosure Statement listing the approved amount of the loan and the approximate date(s) the loan check(s) will be sent to the school.

Borrowing Responsibilities: The lender will be making a financial commitment to the borrower by helping to finance the student’s education. Borrowers will be responsible for contacting their lender immediately if they:
1. Withdraw, graduate or be enrolled less than half-time;
2. Change their name or address; and/or
3. Transfer schools.

Borrowers must complete Exit Counseling in their last semester of attendance.

Veterans Administration Benefits: Veterans should contact the Financial Aid Office to be certified for VA benefits. This should be done at least two months before the beginning of each semester to ensure prompt receipt of VA payments. Veterans must carry at least 12 credit hours during each of the fall and winter semesters to be eligible for maximum benefits; however, prorated payments are made for less than full-time enrollment. Veterans should contact the VA Regional Office for full information pertaining to VA benefits.

Veterans must make academic progress maintaining a 2.0 or better GPA. If the GPA falls below 2.0 for two consecutive semesters, as determined by the Dean of Student Services, the veteran will no longer be able to be certified for benefits. The Financial Aid Office will notify the veteran and the Veterans Administration of termination.

Veterans who have attended other schools beyond high school must have an official transcript from their previous school(s) sent to the Office of Enrollment Services for evaluation of possible transfer credit. The Financial Aid Office will notify the U.S. Department of Veterans Affairs, with a copy to the veteran, of the credit granted. This must be done during the student’s first semester or the student will no longer be certified.
Benefits for Children of Deceased or Totally Disabled Veterans: Dependents of deceased or disabled veterans whose injuries were a result of military service may be eligible for VA benefits. Applications may be obtained from the Financial Aid Office. Children must be between the ages of 18 and 23.

Children of deceased or disabled Michigan veterans whose injuries were a result of military service may be eligible for tuition and fees waiver from the Michigan Veterans Trust. Eligible students must be between the ages of 18 and 23 and attend full time. Applications may be obtained from the Financial Aid Office.

Students covered under any of the veteran’s programs must contact the Financial Aid Office each semester.

OTHER AID PROGRAMS

Unless otherwise noted, persons who feel they are eligible for any of the funds listed below should contact the Admissions Office.

Beaverton Alumni Association Award: This $500 scholarship ($250 per semester for 2 semesters) will be awarded to a Beaverton High School graduating senior who has a parent or grandparent who also graduated from Beaverton HS. The student must have earned a minimum 2.5 high school GPA and demonstrate some financial need. The student must also be enrolled in an associate degree program at MMCC for the upcoming Fall semester.

Bureau of Indian Affairs: Grants for qualified students of at least one-quarter American Indian descent are available through the U.S. Department of the Interior, Bureau of Indian Affairs. Information can be obtained by contacting: Scholarship Officer, B.I.A., Higher Education Grant Program, Michigan Intertribal Education Association, Inc., Baraga, Michigan 49908.

Central Michigan Community Hospital Auxiliary Scholarship: Scholarships of differing amounts are awarded to selected applicants accepted into the nursing program. Recipients must be residents of Isabella County, have a GPA of at least 2.75, and exhibit financial need. Applicants who are employees of Central Mi Community Hospital will be given first priority if all other qualifications are equal.

Chemistry Scholarships: Two different scholarships are awarded for two consecutive semesters to students who are majoring in Chemistry. Stipends of $250 or $800 per year are awarded to two different students. Criteria for awarding is based on GPA and the number of Science/Math courses successfully completed.

Computer Service Technician Award: Awards a $50 reimbursement toward the cost of the CompTIA A+ Service Technician Certification Examination to students of CIS 245 who present official evidence of successfully passing both the Core Examination and the DOS/Windows Examination of the A+ Certification Program. Official evidence consists of a copy of the test results endorsed by the testing site. Such evidence must be presented on or before the starting date of the Fall semester following the semester of successful completion of CIS 245. Successful completion of CIS 245 is a minimum 2.0 GPA.

Dan & Genevieve McDonald Excellence in Nursing Scholarship: This $1,000 one academic year scholarship ($500 per consecutive semesters/sessions) will be awarded to a MMCC student who is enrolled in the full-time Associate in Nursing program. Scholarships will be awarded to student applicants beginning with the highest GPA then in descending order. At least half of the awards will be given to in-district students.

Dorothy Ashcraft Memorial Scholarship: One $2,000 award ($1,000 per semester/session) for a full-time student and one $1,000 award ($500 per semester or session) for a part-time student, up to four semesters, is awarded to any new or returning student with a minimum 3.0 high school or college grade point average or better. Additionally, the candidate must be enrolled full- or part-time (depending upon the award given) in an associate degree program at MMCC. This award is renewable for up to a total of 4 consecutive semesters provided the student maintains a 3.0 GPA and attends MMCC full- or part-time.

Eric C. Schneider Award: This $2,400 award, $600 per semester for up to four semesters, is awarded to a recent Clare H. S. graduate and a recent Farwell H.S. graduate with a minimum 2.0 high school grade point average or better. Additionally, the candidates must demonstrate some financial need and enroll full-time in an associate degree program at MMCC. This award of $600 per semester or session is renewable for up to a total of 4 consecutive semesters provided the student maintains a 2.0 grade point average and attends MMCC full-time.

Federal Broach Company Scholarship: These $500 scholarships ($250 per semester) are offered to one Harrison High School student and one Farwell High School student whose cumulative GPA falls between 2.8 and 3.5. Students must also demonstrate financial need and be enrolled in one of the following programs at MMCC: Accounting, Computer Information Systems, Management & Marketing, Office Information Systems, Computer Assisted Drafting, or Machine Tool.

Fine Arts Scholarship: This scholarship is awarded to a new or returning student who is enrolled in at least one fine arts class and has displayed an active interest in the fine arts program. Students must maintain a 3.0 GPA and take at least one fine arts class per semester in order to be eligible for a maximum of four semesters.

Genevieve Sweeney Memorial Scholarship: A $400 ($200 per semester) scholarship is awarded to a Harrison H. S. senior. Preference will be given to students who are not recipients of other financial aid and who are students of theater or literature. Students maintaining a minimum 2.0 GPA may receive the scholarship for two consecutive semesters or one semester and one summer session. This scholarship is made possible by family and friends of the Sweeney family.
**Geoffrey A. Cotter Memorial Scholarship:** This $1,200 scholarship, $300 per semester for up to four semesters, is awarded to a high school graduate from Isabella County with a cumulative GPA of 2.0 or better who is a full-time student in an allied health program.

**HRA Academic Scholarship:** This $500 or $250 scholarship ($250 per consecutive semester/session) will be awarded to a MMCC HRA student who has a minimum of a 3.0 GPA and has completed at least a minimum of 12 credits. In order to maintain the scholarship, the student must maintain full-time enrollment status in the HRA program and a minimum of a 3.0 GPA.

**Janice A. Langdon Scholarship:** This $1,000 scholarship ($500 per consecutive semester/session in one academic year) will be awarded to a MMCC student who has a minimum 3.0 GPA and has been accepted into the LPN program. The recipient shall receive $500 per semester or session provided he/she maintains full-time status and an overall 2.7 GPA.

**Janice E. Haskin Memorial Award:** These (2) $1,000 awards ($500 per semester for up to four semesters) will be awarded to a Clare County high school graduate with a minimum 2.0 high school grade point average or better who is residing in Clare County. Additionally, the candidate must enroll full-time in an associate degree program in any health related field at MMCC. This award of $500 per semester or session is renewable for up to a total of 4 consecutive semesters provided the student maintains a 2.0 grade point average and attends MMCC full-time.

**J. Dean & Betty L. Eckersley Scholarship:** This scholarship will be awarded to a full-time student in an associate degree program who demonstrates some financial need. Preference will be given but is not limited to students majoring in an allied health field and who reside in Isabella County. Since the scholarship funds are drawn from an endowment given by J. Dean and Betty L. Eckersley, the amount of the award may vary each year and can be used up to 6 consecutive semesters provided a 3.0 GPA is maintained. Students transferring to Central Michigan University may qualify for the CMU Eckersley Scholarship depending on a major.

**James & Sharon Manning Scholarship:** This scholarship ($500 per semester) for a total of four consecutive semesters is awarded to students majoring in Small Business Management, Business Administration, Management & Marketing, Automotive Technology, or a related degree. The recipient must have a minimum 3.0 high school or college GPA to qualify. Applications must be submitted before June 15 for the upcoming year.

**Mark E. Wilson Scholarship:** This $400 scholarship ($200 per semester) will be awarded to a student who has a 3.0 high school or college GPA. Preference will be given to Farwell School District residents and/or a student who intends to be enrolled in the accounting program. The recipient must maintain a 3.0 GPA and be enrolled as a full-time student (12 credit hours or more) at MMCC. Family and friends of the late Mark E. Wilson, a former MMCC Accounting Instructor, make this scholarship possible.

**Mid Michigan CB Radio Club Inc. Award:** This $500 ($250 per consecutive semester) scholarship will be awarded to a Harrison H.S. graduating senior, attending full-time with a GPA of at least 2.0. Preference will be given to students pursuing a degree and/or career in communication or engineering.

**MidMichigan Regional Medical Center-Gladwin Tuition Reimbursement Program:** This program provides tuition reimbursement for the final year of the RN program for 3 students who are recommended by the College, have a cumulative GPA of 3.0 or higher, pass a personal interview with the Dir. of Nursing and/or established Scholarship Reimbursement Committee, and meet all criteria for employment at MRMC-Gladwin. Recipients of the tuition reimbursement must graduate from the program, pass the State Board licensure exam, work 15 hours per month at the Hospital during their final year as a Nursing Assistant or an LPN, if already licensed, and remain in the employ of MRMC-Gladwin for two years after graduation.

**Ralph Myers Memorial Scholarship:** A $250 scholarship will be awarded to a full-time student enrolled in an associate degree program who is a graduate of Gladwin H.S. and has a minimum 3.0 GPA from high school or college. This one-time $250 scholarship may be applied toward the fall or winter semesters or sessions. The Myers Memorial Scholarship is donated by the Myers Corporation to honor the memory of Ralph Myers, a former MMCC Board of Trustees member.

**Occupational Education Tuition Grants:** For several years, the Michigan Department of Career Development has made available to community colleges of Michigan occupational education tuition grants for special population groups. These groups include single heads of households; displaced homemakers who have lost their means of support and must now seek employment and training; persons who wish to be trained in a field usually considered for the opposite sex; economically disadvantaged or academically disadvantaged individuals requiring special services or assistance to succeed; limited English proficiency; and persons who have a disability as defined in the ADA. These grants may be used in occupational programs only. Certain funds for educational expense (e.g. tuition, fees, books, transportation, child care) are available to allow students to enroll or continue in occupational programs.

**Phi Theta Kappa (PTK) Scholarships** for distinguished PTK members only: The purpose of these $250 awards (provided PTK funds are available) is to annually recognize and reward the scholarly achievements of two Phi
Theta Kappa members. To be eligible for nomination, a student must be currently enrolled at MMCC and should expect to be enrolled in the following Fall semester at MMCC. The nominee must have completed at least 12 semester hours in pursuit of an Associate in Arts, Associate in Science or Associate in Applied Science degree, prior to being nominated; and must currently post a cumulative GPA of not less than 3.25 out of a possible 4.0 in all credit course work taken at MMCC. The nominee must be a PTK member in good standing who has earned at least 100 points. Awards will be used in the Fall semester at MMCC.

Pre-Engineering Scholarship: A full-time incoming freshman who is majoring in Pre-Engineering and has a high school GPA of 3.5 may be awarded this $600 scholarship ($300 per semester) for two consecutive semesters. The recipient must take MAT 124 or higher the first semester and the sequential math courses thereafter each semester to continue the scholarship. The recipient must also maintain a 3.5 college GPA to receive the scholarship the second semester.

Rebecca & Harry Goldberg Scholarship: One $1,000 scholarship ($500 per semester or session) for a full-time student and one $500 scholarship ($250 per semester or session) for a part-time student who is pursuing studies in Early Childhood Education to be used for tuition, fees and books. To be eligible, a student must be enrolled part-time to full-time in an Early Childhood Education program at MMCC and have a minimum of a 3.0 college or high school GPA. Recipients may apply for one additional year provided they maintain a 3.0 GPA and attend at least half-time in the ECE program.

Thomas Grabmeyer CSAS Memorial Award: The purpose of this one-time award is to grant relief to students who encounter unusual circumstances while attending MMCC (pending availability of funds). Students should apply to the Financial Aid Director using the MMCC Scholarship/Grant Application and provide a written explanation of their education and/or financial circumstances. A committee consisting of the Financial Aid Director, Dean of Student Services, and the CSAS President or CSAS Advisor will make award decisions. This scholarship honoring the memory of Thomas Grabmeyer, a former MMCC Librarian, is sponsored by the Commission for Student Activities and Services (CSAS).

Witbeck Award: These awards are offered to two residents of Beaverton, Clare, Farwell, Gladwin or Harrison School district who possess either a high school diploma or GED. Both awards are for full tuition (12 credit hours), fees and required books for one year (two semesters). To renew this award for the second semester, students must maintain a 2.0 GPA or higher and be enrolled at MMCC full-time. Candidates will be selected by random drawing each year during mid May at Witbecks Family Foods in Clare, Michigan.

**THE COST OF ATTENDING COLLEGE**

**TUITION RATES**

In-District Resident, Out-District Resident, and Out-of-State Resident rates are printed in the current schedule of classes, and are charged per "Billable Hour(s)".

Students are considered in-district residents if they meet **one** of the following criteria:

1. They are dependent students (according to the Department of Internal Revenue regulations) residing with a parent or guardian and the parent or guardian maintains their primary residence within one of the public school districts of Beaverton, Clare, Farwell, Gladwin, or Harrison.

2. They have resided within the State of Michigan for at least 6 months and within the College district for at least 30 days following their 18th birthday and prior to the date of registration.

3. The student, the student's spouse, or the parents of a dependent student hold real property within the College district against which real property taxes have been assessed in support of the College for the tax year immediately preceding registration; the tax receipt must show proof of payment of taxes which support the College.

4. The students are employees of businesses or industrial firms or governmental agencies or are members of professional organizations within the College district and the employers or organizations, by written agreement, agree to pay directly to the College all tuition and/or fees of students for employer-approved courses.


Pursuant to current state appropriation laws, students must verify residency at the time of each official registration period by providing an appropriate document such as driver's license, voter registration card, Secretary of State identification card, or property tax receipt for the tax period immediately preceding registration.

To accommodate returning students and telephone registration, registration confirmations are mailed using the "POSTMASTER DO NOT FORWARD" label on the envelope. If a registration confirmation is returned to the College because the mail is undeliverable, the registration will not be completed until the student proves residency in person by any of the above stated methods.

*Tuition rates are subject to change without notice by action of the Board of Trustees.*
Billable Hour(s): The "Excess Contact Hour Fee" has been modified, students will no longer be charged a separate Excess Contact Hours fee. As of the summer 2002 session students will be charged tuition on "Billable Hours" instead of Academic credit hours.

Billable hours are computed by totaling the lecture + lab hours. For example:

   BIO.101 4 credits (3 lecture + 2 lab) 3+2 = 5 Billable hours

This charge will be implemented over a three year period. The exceptions are: 1) a cap of 15 billable hours per class; 2) Co-op students at worksites are exempt; and 3) adjustments were made to out of formula classes such as CIS and OIS. For example:  
   CIS.100 formerly reported 3 credits (3 lecture + 3 lab) now is adjusted to 3(3 + 1.5).

Please refer to your schedule for billing credits on current course offerings.

FEES*

Assessment Fees: Anyone who is not a registered MMCC student will be charged an Assessment Fee when making use of the services of the Assessment Center. (A complete listing of fees is available in the Assessment Center). Non-MMCC students who have been assessed and subsequently enroll in courses within one year of testing will be reimbursed in full upon presenting the assessment receipt to the Dean of Student Services.

Enrollment Fee: An Enrollment Fee is required for each session with the amount based upon total credit hours taken. This fee reserves classes but does not apply to tuition. The enrollment fee covers the costs of enrolling as well as providing enrolled students access to computer labs for academic pursuits.

   Enrollment Fee: $50 (6 credit hours or more)
   $25 (5.9 credit hours or less)

Early Enrollment: Students who opt to register during the early enrollment period (30 calendar days prior to the start of fall and winter semester and 10 calendar days prior to the start of spring and summer sessions) will receive a MMCC Bookstore Discount Voucher.

Enrollment Fee based on Credit Hrs. X 1/2 = Voucher Amt.

   $50 (6 credit hrs. or more) = $25. Bookstore Discount Voucher
   $25 (5.9 credit hrs. or less) = $15. Bookstore Discount Voucher.

This fee is non-refundable and not applicable to tuition. Financial aid recipients may not charge this fee. If an Institutional Drop results in a total drop for the student, the Enrollment Fee will be refunded.

Students with tuition waivers will pay the Enrollment Fee. Students enrolled in performance classes (theatre productions, choral ensemble, and MMCC singers) on an audit basis do not pay the Enrollment Fee.

Students who are already registered and are adding classes during the same enrollment period (i.e. fall semester classes while already registered for the fall semester) that begin at dates other than the normal semester will be charged an additional Enrollment Fee only if the enrolled credit hours do not fall within the specified range of the student’s initial enrollment.

Graduation Fee: A fee of $20 is required at the time a student makes application for graduation. This fee covers graduation audit, one diploma or certificate, and one cap and gown for commencement.

Non-Resident Student Facility Fee: Funding for MMCC physical facilities and equipment for the main campus is supported by an approved levy of property taxes with the College district. Thus MMCC resident and non-resident (non-district) students alike enjoy the benefit of quality facilities supported by district taxpayers. To bring greater equity to the situation and to support facilities for off-campus as well as on-campus instruction a $5 per credit hour facility fee is charged to non-resident MMCC students. The Tuition Refund Schedule will apply to the facility fee for any drop/withdrawals.

Student Service Fee: For the fall and winter semesters only, a $5 fee is charged all students enrolling in 3 or more credit hours provided the classroom site is within 30 miles of Harrison or Mt. Pleasant. The fee is non-refundable unless a total withdrawal is made within the 100% refund period. Upon payment of the fee, students are issued I.D. cards. Exceptions: 1) theater and music performance classes when the student is enrolled on an audit basis and receiving a Board of Trustees Drama or Music Scholarship; 2) students receiving Board of Trustees Public Service Awards; 3) students enrolled solely in Academic Support Center (ASC) reading improvement classes and receiving Board of Trustees ASC Scholarships. Students with such exceptions shall have the option of paying the $5 fee and receiving a student I.D. card. PLEASE NOTE: No Student Activity I.D. Card will be issued to students under the age of 16.

*Fees are subject to change without notice by action of the Board of Trustees.

TUITION REFUND POLICY

Mid Michigan Community College has an established schedule for the refunding of tuition and course fees based upon the date when a student withdraws from a course. The date the withdrawal is initiated determines the amount of the refund. During a 15-week semester, a full refund is allowed through the first 11 calendar days of the semester, with a 50% refund allowed through the remaining 7 days of the refund period. There is no differentiation between partial and total withdrawals in terms of percentage of refund of tuition and fees. Sessions containing less than 15 weeks are prorated, as are classes that vary in length. ASC courses and Independent Study courses shall be considered to be 15 weeks in length.
The refund schedule is so structured that persons changing credit hour loads will receive a 100% refund of tuition and some fees if the change is made within the official enrollment period for the semester or session. Total refunds for courses starting on dates which do not coincide with the scheduled semester or session starting dates will be limited to the official registration period for such courses. Refunds to persons enrolling in a course after the official starting date of the course will be made according to the refund schedule, using the official starting date of College classes as the point from which the schedule will apply.

Persons dropping and adding courses as a result of an institutional change (administrative or faculty-initiated) after the official enrollment period may do so exclusive of the refund schedule. Written rationale must appear on the Drop/Add form. Persons dropping courses as a result of an institutional drop (removal of the course offering from a semester or session schedule) will receive a 100% refund of tuition and fees for the dropped course.

The Vice President of Academic Services reserves the right to eliminate refunds to students who withdraw from designated “limited enrollment” classes.

The President or the President’s designee reserves the right to authorize exceptions to the refund policy in cases of unusual circumstances.

Persons with questions concerning refunds should contact the College Business Office.

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**PERCENTAGE OF TUITION AND FEE REFUND SCHEDULE**

| Calendar Days beginning with and including first day of college classes | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 and over |
| Full Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 14 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 12 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 10 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 9 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 8 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 7 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 6 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 5 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 4 Week Semester | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

*The date the drop is initiated will be counted as the date of refund.
SERVICE FEE NON-REFUNDABLE

**RETURN OF TITLE IV FUNDS POLICY**

The Higher Education Amendments of 1998 (Section 484B) changed the formula for calculating the amount of aid a student and school can retain when the student totally withdraws from all classes. Students who withdraw from all classes prior to completing more than 60% of a semester will have their eligibility for aid recalculated based on the percent of the semester completed. For example, a student who withdraws completing only 30% of the semester will have “earned” only 30% of any Title IV aid received. The school and/or the student must return the remaining 70%. The Financial Aid Office encourages students to read this policy carefully. Students considering withdrawal from all classes PRIOR to completing 60% of the semester, should contact the Financial Aid Office to see how withdrawal will affect financial aid.

1. This policy shall apply to all students who withdraw, drop out or are expelled from MMCC, and receive financial aid from Title IV funds:

   a. The term "Title IV Funds" refers to the Federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) & includes the following programs: all Family Federal Education Loans including Unsubsidized, Subsidized, & PLUS loans, also Federal Pell Grants, & Federal SEOG.

   b. A student’s withdrawal date is:

      i. the date the student began the institution’s withdrawal process (as described in the MMCC Catalog and Schedule of Classes Booklet) or officially notified the institution of intent to withdraw; or
      ii. the midpoint of the period for a student who leaves without notifying the institution; or
      iii. the student’s last date of attendance at a documented academically related activity.

2. Refunds on all institutional charges, including tuition and fees, will be calculated using the refund policy published in the MMCC Catalog.

3. Title IV aid is earned in a prorated manner on a per day basis up to and including the 60% point in the semester. Title IV aid and all other aid is viewed as 100% earned after that point in time.

   a. The percentage of Title IV aid earned shall be calculated as follows:

   \[
   \text{Percent completed} = \frac{\text{# of days completed by student}}{\text{Total number of days in semester/session}} \times \text{percent earned}
   \]

   The percent of semester/session completed shall be the percentage of Title IV aid earned by the student. The percent not completed is the percentage of unearned aid by the student.

   * The total # of calendar days in a semester/session of enrollment shall exclude any scheduled breaks of more than five days.
b. The percentage of Title IV aid unearned (i.e., to be returned to the appropriate program) shall be 100% minus the percent earned.

c. Unearned aid shall be returned first by MMCC from the student’s account calculated as follows:

Total institutional charges \( \times \) % of unearned aid = amount returned to Financial Aid Programs.

Unearned Title IV aid shall be returned to the following programs in the following order:
1. Unsubsidized Stafford Loan
2. Subsidized Stafford Loan
3. Parent Loans to Undergraduate Students (PLUS)
4. Federal Pell Grant
5. Federal SEOG
6. Other Title IV grant programs

Exception: no program can receive a refund if the student did not receive aid from that program.

d. When the total amount of unearned aid is greater then the amount returned by MMCC from the student’s account, the student is responsible for returning unearned aid to the appropriate program(s) as follows:

1. Unsubsidized Stafford Loan *
2. Subsidized Stafford Loan *
3. Parent Loans to Undergraduate Student (PLUS) *
4. Federal Pell Grant **
5. Federal SEOG **
6. Other Title IV grant programs **

* Loan amounts are returned with the terms of the promissory note.

** Amounts to be returned by the student to federal grant programs will receive a 50% discount.

4. Refunds and adjusted bills will be sent to the student’s home address following withdrawal. Students are responsible for any portion of their institutional charges that are left outstanding after Title IV funds are returned.

5. Institutional and student responsibilities in regard to the return of Title IV funds.

a. MMCC responsibilities include:
   i. providing each student with the information given in this policy;
   ii. identifying students who are affected by this policy and completing the Return of Title IV Funds calculation for those students;
   iii. returning any Title IV funds that are due the Title IV programs.

b. The student’s responsibilities include:
   i. becoming familiar with the Return of Title IV policy and how complete withdrawal affects eligibility for Title IV aid;
   ii. returning to the Title IV programs any funds that were disbursed directly to the student that the student was determined to be ineligible for under the Return of Title IV Funds calculation.

6. The fees, procedures, and policies listed above supersede those published previously and are subject to change at any time.

7. Any notification of a withdrawal or cancellation of classes should be in writing and addressed to the Enrollment Services Office.

If you would like examples of the refund policy, contact the Financial Aid Office.

**FACTSTUITION MANAGEMENT PLAN**

All students are expected to pay 100% of all assessed charges at the time of registration. Students may opt to use a convenient tuition budget plan offered by FACTS Tuition Management Company for a $25.00 per semester NON-REFUNDABLE fee.

Brochures explaining the program are available at the Office of Enrollment Services on either campus, on the MMCC web site www.midmich.edu, or you may call Mid Michigan Community College Student Accounts Office at (989)386-6611 or FACTS Tuition Management Company at (800) 609-8056.

**OUTSTANDING BILLS**

Any student with outstanding bills in the College Business Office from any previous semester will not be allowed to use any charge system, will not be allowed to re-enroll, and will not be able to obtain grades, transcripts, or diplomas until such time as their bill is paid in full.

**COLLEGE BOOKSTORE PURCHASES**

All College Bookstore purchases must be paid in full by cash or check (or Financial Aid approved charge slip) unless documented, guaranteed 100% payment by an outside agency has been provided to Mid Michigan Community College.
ACADEMIC HONESTY

Students have an obligation to abide by accepted standards of academic honesty which dictate that all scholastic work shall be original in nature.

GRADING SYSTEM

<table>
<thead>
<tr>
<th>Grade</th>
<th>Significance</th>
<th>Points Per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Superior</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>Above Average</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>Average</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>Below Average</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>Below Average</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td></td>
<td>0.7</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0.0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>Deferred Grade</td>
<td></td>
</tr>
<tr>
<td>AU</td>
<td>Audit</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td></td>
</tr>
<tr>
<td>CR/NC</td>
<td>CR=&quot;C&quot; or better</td>
<td>Not included in computing</td>
</tr>
<tr>
<td></td>
<td>NC=&quot;C-&quot; or below</td>
<td>hours and points</td>
</tr>
<tr>
<td>CR</td>
<td>Transfer credit, Advanced credit, Articulation credit, Credit by Examination and Non-Traditional credit</td>
<td></td>
</tr>
</tbody>
</table>

The Grade Point Average (GPA) for students is found by dividing the total honor points earned by the hours attempted.

Instructors may choose whether or not to use the +/- option for their students.

INCOMPLETE GRADES

A student who fails to complete all the requirements of a course because of extenuating circumstances may receive a grade of "I" (incomplete) at the instructor’s discretion. If a student receives an "I" grade, an Incomplete Contract, signed by the student and the instructor, must be on file in the Office of Enrollment Services giving the details of when and how the course work is to be completed. Instructors may give students up to a maximum of one year to complete the required work and remove an "I" grade. If the student fails to meet the terms of the contract, the "I" grade will be changed to a grade of "F". The "I" grade will appear on the transcript, but the hours will not be figured into the GPA until a grade of record has been assigned. Incomplete Contracts may be obtained from the Office of Enrollment Services.

CREDIT / NO CREDIT

A student may take courses on a Credit/No Credit basis subject to regulations summarized here. The option is elected (or removed) by submitting a Credit/No Credit Request on a Drop/Add form to the Enrollment Services Office during the official drop/add period for a semester.

The instructor is not notified when a course is taken credit/no credit and assigns the student a letter grade. The grade is converted to credit or no credit according to the following guidelines. The student earns credit (CR) for the course and credit toward graduation when a grade of "C" or better is assigned. No credit (NC) is recorded when the assigned grade "C-" or below. The course appears on the student's permanent records with the CR or NC grade, but the grade has no effect on the grade point average.

Departments designate which of their courses may be taken on a credit/no credit basis. A department may offer certain courses exclusively on a credit/no credit basis after approval by the appropriate curricular authorities and publication in the schedule.

A maximum of 12 semester hours of credit earned under the credit/no credit option may be applied toward a degree. Courses exclusively offered on this basis are not included in the 12-hour restriction.

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

GRADE REPORTS

Students receive official grade reports at the end of each semester or session of enrollment showing grades, hours attempted, hours completed, honor points, and GPA. Grade reports are sent to students by mail and grades are not given out in the Office of Enrollment Services or by telephone.

Grade reports will not be released for students who have outstanding bills in the Business Office or who have overdue books in the Media Center.
GRADE CHANGE AND REVIEW PROCEDURES

Responsibility for resolving grading disputes is shared among the instructor, the student, the faculty, and the Vice President of Academic Services.

Under Mid Michigan Community College policy, it is the instructor’s prerogative to determine student grades. If a question is raised by a student with regard to a grade, the student should discuss the matter with the instructor. The instructor should discuss the matter willingly and, giving evidence, make clear the basis for determining the student's grade. In turn, the student should recognize the need to demonstrate a valid basis for a grievance.

If the instructor agrees to change the grade, a Change of Grade form must be completed by the instructor, approved by the Instructional Administrator, and filed with the Dean of Student Services. Change of Grade forms may be obtained from the Office of Enrollment Services.

If, after discussion with the instructor, the student feels there is a valid justification for a grade grievance, the student should contact the Vice President. The Vice President shall arrange an informal conference with the instructor, the student, and other appropriate administrative instructional personnel for the purpose of resolving the grievance.

If, after such a conference, the student still believes there is valid justification for a grade grievance, a written grade grievance should be filed with the Vice President explaining fully all rationale and information concerning the grievance.

Upon receipt of the written grievance from the student, the Vice President shall call the Grade Review Committee into session. This committee is composed of three faculty members, the Dean of Student Services or his/her designee, and the Instructional Administrator from the Instructional division involved. The Vice President shall chair the committee and appoint a recording secretary.

The grievance session shall be informal in nature with all facts being presented by the instructor and the student. After the presentation of facts, the Grade Review Committee will deliberate in closed session with the Vice President. The Vice President shall consider the assessment of the Grade Review Committee in rendering a decision to maintain or change the grade in question.

Prior to informing the student of the decision, the Vice President shall review the details of the grade grievance with the President or his/her designee. Within seven days of the conclusion of the hearing, the student shall be notified in writing of the decision. This written decision provided to the student is the final institutional disposition of any grade grievance. No additional appeals are available.

Grade grievances must be initiated within 60 days after the last day of the class in which the grade was received.

HONORS LIST AND HIGH HONORS LIST

Students who have attempted and completed 12 or more credit hours in a given semester with a 3.50 through 3.89 GPA will be placed on the Honors List. Any students who have attempted and completed 12 or more credit hours in a given semester with 3.90 through 4.00 GPA will be placed on the High Honors List. No students receiving grades of "D(+/−)", "F", "I", or "Z" will be placed on either list. Courses numbered less than 100 and ENG 101 will not be computed into a student’s GPA when determining eligibility for Honor, High Honors, Honor’s course eligibility and Phi Theta Kappa.

TRANSCRIPTS

Students desiring official transcripts of their records from the College must submit a written, signed request to the Office of Enrollment Services. Letter requests should include name, current address and phone number, social security number, and dates of attendance. Official and unofficial transcripts may be obtained free of charge.

No transcripts will be released without the student’s signature on the request. Transcripts will not be released for students who have outstanding bills in the Business Office or who have overdue books in the Media Center.

Transcript Request Forms may be obtained from the Office of Enrollment Services.
ACADEMIC ALERT

Academic Alert is a system designed for the early identification of students experiencing academic difficulty. The intent of this system is to notify the students that they are not meeting class expectations and to provide support, if needed. Support services that can be provided are educational including advising, remediation, and tutoring; and developmental including career planning, self-concept enhancement, and personal counseling.

ACADEMIC PROBATION & DISMISSAL POLICY

Academic Probation or Academic Dismissal occurs when a student’s cumulative grade point average falls below the following scale:

<table>
<thead>
<tr>
<th>Attempted Hours</th>
<th>Academic Probation</th>
<th>Dismissal Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 - 17</td>
<td>0.00 - 1.99</td>
<td>less than 1.0</td>
</tr>
<tr>
<td>18 - 37</td>
<td>1.00 - 1.99</td>
<td>less than 1.5</td>
</tr>
<tr>
<td>38 - 50</td>
<td>1.50 - 1.99</td>
<td>less than 1.6</td>
</tr>
<tr>
<td>51 - 63</td>
<td>1.60 - 1.99</td>
<td>less than 1.7</td>
</tr>
<tr>
<td>64 or more</td>
<td>1.70 - 1.99</td>
<td></td>
</tr>
</tbody>
</table>

Students who are on Academic Probation will be required to see a counselor for assistance and must follow the prescribed procedure(s) prepared by the counselor. The intent is to assist students in improving their GPA, thereby enabling students to experience academic success.

It is the intent of MMCC to provide assistance and support to those students with unique academic needs. If students choose not to participate or fail to make academic progress, they can no longer expect the institution to provide them with educational and support resources. A student will be subject to academic dismissal if there is scholastic evidence that he/she can no longer benefit from or successfully work toward the completion of a program at MMCC. When this happens, they will be dematriculated for a minimum of one enrollment period or until such time as they demonstrate a willingness to participate in activities that are designed to improve their academic records.

2. The procedure(s) for working with students on Academic Probation are:
   a. If a student has completed only one semester (12 credit hours), the counselor may make specific recommendations per “b.” below, but not necessarily limited to them.
   b. If a student is placed on Probation, the counselor will, in consultation with the student, identify specific activities designed to assist academic progress. These activities are not limited to, but may include:
      1) additional assessment
      2) registering for a specific class (i.e. Life Skills, ASC)
      3) repeating courses
      4) reducing credit hour load
      5) career exploration
      6) program change
      7) workshops
      8) tutoring

3. Students on Academic Probation who fall below the dismissal level as stated will be dismissed and will not be allowed to register for a minimum of one enrollment period.

4. Students who are dismissed may appeal the decision to the Dematriculation Committee.* The appeal must be initiated by the student within three weeks of the dismissal notification date.

5. Students who continue on Academic Probation can re-enroll, but will be required to meet with the same counselor to determine the schedule for subsequent semesters.

6. A dematriculated student who wishes to register for any future semester(s) must first meet with the counselor. The counselor, in consultation with the student, will determine readiness and/or appropriate activity.

Students in allied health programs must receive grades of “C” or better in all classes to remain in good standing in their particular program except as follows: For Nursing and Radiography, BIO 141 & BIO 142 must be passed with a “B-” or better. The Medical Assistant program students must attain grades of “C-“ or better in all OIS courses while all other grades must be grade “C” or better. If students have taken science courses prior to admission into a specific health program, the courses must have been completed within five years of the date the student formally begins the program.

* The Dematriculation Committee shall be composed of two faculty members, one counseling faculty member, the Vice President of Academic Services or designee, and the Dean of Student Services.

ACADEMIC PROBATION & DISMISSAL PROCEDURES

1. Academic Probation/Dismissal notification letters are mailed to students after grades are submitted from the Dean of Student Services with specific instructions required for each student. The student must call the identified College Counselor by the date as listed in the letter. Students are prevented from registering until contact is made with a College Counselor.
ACADEMIC AMNESTY

Mid Michigan Community College understands that a student may “get off to a bad start” due to circumstances beyond his/her own control. Academic Amnesty is an action of forgiveness provided to certain students who have experienced poor academic performance at MMCC. Through Academic Amnesty, a student will be awarded a “second opportunity” to achieve success at MMCC by removing the negative impact of less than “C” grade courses on the student's academic transcript.

To be eligible for Academic Amnesty, a student must have:

1. A cumulative grade point average (GPA) of less than 2.0 for the period in question.
2. Recently completed at least 6 credit hours or more and have maintained a current 2.00 GPA or higher.
3. Allowed five (5) years to elapse between the poor academic performance and requirement number 2 listed above.

Once eligible, a student may petition the Academic Amnesty Committee by submitting a completed Application for Academic Amnesty form to the Office of Enrollment Services. The applicant must meet with the Director of Counseling and Assessment and agree to the conditions of Academic Amnesty. The applicant must sign a release form empowering the Dean of Student Services to release his/her records to the Academic Amnesty Committee.

The Academic Amnesty Committee will review all requests. If Academic Amnesty is granted by the Committee it must be for one continuous enrollment period in a program at MMCC, as indicated by the courses taken by the student that are directly attributable to that program.

Once Amnesty has been approved by the committee and applied by the Dean of Student Services to the student’s (petitioner’s) transcript, the student will not be permitted to rescind the application of Amnesty on his/her academic record. Other conditions include:

1. No course work will be removed from the transcript.
2. A special notation explaining Amnesty approval will be placed on the student’s transcript.
3. Honor points and credit hours attempted during the amnesty period will be subtracted from the current cumulative honor points and credit hours attempted. A new cumulative grade point average will then be established.
4. Courses successfully completed with a grade of “C” or better during the amnesty period can be used toward the student’s certificate or degree requirements.
5. A student receiving Academic Amnesty will not be allowed to graduate with honors.
6. Academic Amnesty, when granted, applies only to Mid Michigan Community College courses. There is no guarantee, expressed or implied, that Academic Amnesty will be recognized by any other college or university.
7. Courses previously counted to fulfill degree requirements on a completed degree cannot be considered for Academic Amnesty.
8. Academic Amnesty can be granted only once to any student.

The Dean of Student Services has the responsibility of implementing Amnesty as stated in the Academic Amnesty Policy when it is granted to a student.

COURSE SUBSTITUTIONS

Students are expected to take the required courses prescribed on the program of study they have declared. Occasionally, however, circumstances necessitate a substitution. If this should become necessary, the student should obtain a Waiver/Substitution form from the Office of Enrollment Services, or the counseling/advising office. This form should be completed by the student in consultation with an academic advisor, giving the required course to be waived, the course to be substituted, and the rationale for such an action. This substitution must then be approved by the instructor of the course to be waived, by the Instructional Dean, and by the Dean of Student Services. If any of the three disapproves the action, it will be necessary for the student to take the required course.

Substitutions are not encouraged and should be considered only under the most unusual circumstances. Students should be aware that course substitutions may not transfer to another institution. Students planning to transfer are strongly encouraged to consult with the transfer receiving institution for specific course requirements.

GRADUATION REQUIREMENTS

Candidates for degrees or certificates must meet all five of the following requirements to be eligible for graduation:

1. Complete the number of credit hours of prescribed and elective courses required in the student’s declared program of study—a minimum of 62 for an associate degree and a minimum of 31 for a certificate;
2. Maintain a GPA of 2.0 or higher (students enrolled in allied health programs must receive grades of "C" or better in all course work except as follows: Nursing and Radiography, BIO 141 & BIO 142 must be passed with a "B-" or better. The Medical Assistant program students must attain grades of "C-" or better in all OIS courses while all other grades must be grade "C" or better. required in their programs in order to be eligible for graduation);

3. Earn a minimum of 12 semester hours of credit while enrolled at Mid Michigan Community College;

4. Make application for graduation and pay the graduation fee.

5. General education requirements must be completed as stated on the program guides.

Students are urged to apply for graduation early (in August for May graduation, in January for August or December graduation) so that the Dean of Student Services can certify eligibility for graduation and inform the students of the courses which must be taken during the final semester to meet graduation requirements.

GRADUATING WITH HONORS OR HIGH HONORS

Graduation with honors or high honors is determined by the student’s cumulative GPA at the end of the last semester prior to graduation.

A student must have a cumulative GPA of 3.5 through 3.89 to graduate with Honors and cumulative GPA of 3.9 through 4.0 to graduate with High Honors.

Students who transfer credit into Mid Michigan Community College should note that a minimum of one-half of the student’s credits toward a program should be taken at MMCC to be eligible to graduate with honors.

The MMCC Bookstore stocks all required textbooks and supplies for college courses. In addition, the Bookstore carries a variety of items including MMCC printed clothing, supplies, and gifts. The Bookstore sells many office supply items such as pens, pencils, folders, paper, computer discs, and calculators. Backpacks and specialty book totes are stocked year-round. Many snack items including candy, chips, gum, and pop are also available.

COLLEGE FOOD SERVICE

The Cafeteria is located on the south end of the Harrison Campus building in the Student Union. It serves a large variety of menu items, including breakfast and lunch entrees. Soups, luncheon specials, and fresh-baked breads and desserts are produced in the food service kitchen each day.

Food service is offered daily for students, staff, and visitors from 8:00 a.m. until 5:30 p.m. Monday through Thursday and Friday from 8:00 a.m. until 1:30 p.m. Summer hours vary from the academic year schedule.

A wide variety of on-campus catering and banquet services is offered year-round. The Community Room just off the Student Union and the Michigan Room on the second floor can accommodate from 10 to 300 guests comfortably. For further information about catering services, contact the Hospitality Services Manager at (989) 386-6688.

COMPUTER LABORATORIES

All enrolled students have free access to an open computer lab for academic pursuits.

HOUSING

Mid Michigan Community College does not maintain housing for students on the campus, but it does make available a housing contact list from local newspapers. This list is available through the Admissions Office. The College assumes no responsibility for the supervision or administration of off-campus housing.

JOB PLACEMENT SERVICES

The Placement Office assists current students and alumni to find full or part-time employment related to their fields of study. Position vacancies received by the Placement Office are posted on the Placement Website. More information on these openings is available at (989) 386-6661.

Students interested in using Placement services must register with the Placement Office. The office will then establish a credential file for referral to prospective employers. If students need assistance in preparing a resume, informational packets are available through this office. Students should register with the Placement Office early in their final semester before graduation.
MEDIA CENTER

The Charles A. Amble Library provides services that are designed to meet the classroom-related and general information needs of students, faculty, administration, and MMCC’s service area at large.

The Library contains a book collection of over 20,000 volumes, which are arranged by the Dewey Decimal Classification System. Other resource holdings include collections of 120 current periodicals, 14 newspaper subscriptions, 94 titles in microform, and 1,550 titles in the audio and video collection.

The Media Center staff provides bibliographic instruction, library tours, electronic database searches, interlibrary loans of books and periodical articles, and assistance to students and faculty in using library resources.

Telecommunication services are provided for MMCC students, faculty, and staff, i.e. receiving satellite programming and teleconferences. Viewing facilities are available to enable those who do not have access to cable or video equipment at home to review telecourse or satellite materials on campus. Telefacsimile services are provided to share resources and transmit correspondence worldwide. Students have access to the World Wide Web for internet research.

The Media Center houses a copy machine, microfilm reader/printer and many pieces of audiovisual equipment for student and faculty use. Other services available are audio and video tape duplication and lamination of instructional material.

Library services are supported by new technologies that provide better and faster document delivery. ProQuest’s online subscription provides students access to databases with over 3,000 journals, most of which are available in full text. FirstSearch and InfoTrac, other online services, provide access to the full-text of millions of newspaper and magazine articles, citations to some 30 million books, and articles from more than 15,000 journals and newspapers. FirstSearch and InfoTrac are provided by funding from a federal Library Services and Technology Act grant. All three database services may be used on or off campus. (Note: off campus access is restricted to library cardholders).

MMCC’s Charles A. Amble Library is a member of the Valley Library Consortium. This computerized network links the library to Delta College, Northwood Institute, and the public libraries of the Bay City, Midland and Saginaw region. Computers, both on and off campus can search the database of over 600,000 items held by these libraries by author, title, subject, and keyword.

Hours for the Harrison Campus Media Center are Monday through Thursday from 8:00 a.m. until 8:00 p.m., Friday from 8:00 a.m. until 4:30 p.m., and Saturday from 9:00 a.m. until 1:00 p.m. during the academic year. Between academic sessions the library hours are 8:00 a.m. until 4:30 p.m. Monday through Friday.

STUDENT EDUCATIONAL SERVICES

Student Educational Services (SES) offers academic assistance and additional support for students in academic need. This support includes, but is not limited to: tutorial assistance, supplemental instruction, academic advising and counseling for students enrolled in basic skills courses and/or in occupational programs. SES also coordinates Credit by Examination. SES is located in Room 152 on the Harrison Campus, and Room 135 in the Mt. Pleasant Campus. Office hours are from 8:00 a.m. until 4:30 p.m. Evening hours vary with semester.

Students With Disabilities

Mid Michigan Community College is committed to making accommodations and providing services to students with documented disabilities, which interfere with the learning process. The following support services and accommodations are available to these students: readers, writer/scribes, notetakers, interpreters, instructional aids, visual aids, books-on-tape, alternative testing methods, assistance with accessibility, and referrals to college and community resources. To inquire about these services, please contact the Special Populations/Disability Services Counselor located in Room 152 on the Harrison Campus. For services on the Mt. Pleasant Campus, please contact Student Educational Services in Room 135.

Students must provide written verification of their disability before accommodations can be made. In addition, students must register for services and re-apply each semester for continued support.

Tutorial Services

Student Educational Services provides tutorial assistance to any student experiencing academic difficulty and requesting assistance. Tutoring is available on an individual or group basis. SES also provides workshops and literature on test anxiety, study skills, and notetaking.

Supplemental Instruction

Supplemental Instruction (SI) is available for targeted classes for students who could benefit by studying together under the guidance of a student leader. Each SI leader has previously completed the course and has also received training in group learning strategies.

Special Populations

The Carl D. Perkins Act is a federal program that is funded through the Michigan Department of Career Development. This grant is designed to help qualified MMCC students who are enrolled in two-year state approved occupational programs. Special population students are those students who have academic or economic disadvantages, limited English skills, physical, emotional or learning disabilities, or are involved in non-traditional training, are a single parent, or displaced homemaker. Targeted services offered to these students include all SES program services plus additional support such as: personal, academic and career counseling, college and community agency referrals,
communication and liaison with instructors, needs assessment, remediation of student’s basic academic skills, registration assistance, financial assistance, and other services as needed to meet the individual student needs.

**ACADEMIC SUPPORT CENTER**

As part of Student Educational Services, the Academic Support Center’s (ASC) primary function is to assist students in becoming more competent, self-confident, and efficient learners so they will be able to meet the College’s academic standards and attain their own educational goals. To do this, the ASC offers a basic academic skills program aimed at bridging the gap between the students’ previous educational experiences and the demands of the College curriculum.

Individualized instruction in reading, writing, spelling, mathematics, accounting, and study skills is provided on both the Harrison Campus and Mt. Pleasant Campus. In addition to its basic skills program, both campus ASC’s offer a freshman-level course in personal finance. Students enrolled in any ASC course set their own schedules and work in the ASC at their own pace on course requirements, with assistance provided by ASC instructors.

All MMCC students are invited to use ASC services, instructional media and materials—it is not necessary to be enrolled in an ASC course to use these resources. MMCC instructors often provide study materials to supplement and support their courses, and these materials may be available in the ASC. Since computer-assisted instruction has been developed in various educational fields, the ASC makes available many computer programs which students may use on its Apple II, Macintosh, and IBM-compatible computers. A list of software may be obtained from each center. Use of e-mail, the Internet and library on-line research is also available in the ASC.

To further accommodate its students, MMCC offers several developmental courses in a traditional classroom setting as well as through the ASC, so students requiring a review of basic academic skills may choose the instructional mode which best suits their needs.

**STUDENT ACTIVITIES**

**STUDENT IDENTIFICATION CARDS**

During the fall and winter semesters, students carrying 3 or more credit hours are assessed a $5 Student Service Fee and are issued a Student Identification Card. These cards may be used to participate in many College and community events free of charge or at reduced rates. For exceptions to the Student Identification Card Policy, see the section: “The Cost of Attending College.”

**COMMISSION FOR STUDENT ACTIVITIES AND SERVICES (CSAS)**

CSAS functions as an advisory body to provide activities and services to students of the College. The Commission, composed of interested student leaders and College personnel, has offered activities such as the College picnic, dances, coed sports nights, dinners, scholarship fund-raisers, and many other assorted activities and services. Meetings are held every other week. Announcements of meetings are posted.

**PHI THETA KAPPA International Honor Society**

**Alpha Omicron Omicron Chapter**

Phi Theta Kappa is an international honors organization for two-year college systems. Phi Theta Kappa has recognized academic excellence since 1918 and has become the largest and one of the most prestigious honor societies in higher education. More than 1.2 million members have been inducted at 1,200 colleges. Distinguished alumni include businessman H. Ross Perot, former UN Ambassador Jeanne Kirkpatrick, Apollo 13 Astronaut Fred Haise, Grammy-winning entertainer Rudy Gatlin and Emmy Award-winning actress Sela Ward.

Membership is primarily based upon academic achievement. Invitations to membership are extended twice a year to MMCC students who have completed at least twelve hours of coursework at MMCC leading to an associate degree program with a GPA of 3.5 or better. Letters of recommendation from two MMCC faculty members are also required.

Involvement with Mid's PTK chapter offers a myriad of opportunities for intellectual enrichment, fellowship, community service, personal development and development of leadership skills. In addition, members are eligible for scholarships on the campuses of most four-year colleges and universities.

MMCC's PTK chapter is an extremely active one that is committed to the society's four Hallmarks: Scholarship, Leadership, Service and Fellowship, and to serving the college and surrounding communities.

**BUSINESS AND INDUSTRY DEVELOPMENT CENTER**

Through the College’s Business & Industry Development Center (BIDC), MMCC is able to reach out and build close and meaningful working relationships with local employers. MMCC can be a valuable resource in helping community members build and maintain an efficient, smooth-running operation.

With the College as a partner in progress, community members' businesses can draw from a pool of many knowledgeable people with a broad range of talents and experience. The BIDC is located in the Michigan Technical Education Center (M-TEC) on the Harrison campus.
**Business & Industry Development Center:** The point is simply this: MMCC has a deeply vested interest in seeing that local businesses and industries stay healthy and prosperous. Contact the College's Business and Industry Development Center to get a more complete picture of just how MMCC can help businesses train for the present, and develop for the future.

**Seminar Planning:** An experienced staff will work with area businesses in establishing goals, format, and outcomes. Well-informed speakers are readily available. Hospitality services, audiovisual equipment, and lodging can be arranged.

**Continuing Education:** More and more associations and agencies are requiring their employees to enroll in continuous learning activities to retain licensure. Educational programs can be arranged either on or off campus for up to 250 people.

**Personal Development:** Activities in this area address professional and personal development. Lifelong learning opportunities are available in recreation, fitness, special events, and trips.

**CONTINUING EDUCATION NON-CREDIT COURSES**

Mid Michigan Community College also offers a wide variety of non-credit courses*. Some course offerings include:

- Professional Development courses including topics on use of the computer, Windows, the Internet, E-Mail, Digital Cameras and Scanners, Microsoft programs such as Word, Access, Excel, Powerpoint, and much more;
- Personal Interest courses including topics on Basket Weaving, Puppy and Dog Obedience, Photography, Furniture Restoration, Kardio-Kickboxing, Karate, and more;
- Fire Officer Training, Law Enforcement, Aromatherapy, Herbology, Massage, and the list goes on. Please refer to the current **Schedule of Classes** for course offerings and registration details.

(*Note: some non-credit offerings may also be offered for credit)

**STUDENT REGULATIONS**

**CAMPUS CRIME PREVENTION & SECURITY REGULATIONS**

Mid Michigan Community College also pledges to comply with the regulations as specified by the Crime Awareness and Campus Security Act of 1990, as amended by Public Law 105-244 under the Department of Education's Student Assistance General Provisions 34 CFR Part 668. It should be noted that several provisions of this law are printed in MMCC’s Schedule of Classes.

**Crime Prevention**

Mid Michigan Community College asks that students consider CAMPUS CRIME PREVENTION as a shared responsibility between the College and its campus community members. Public apathy is a criminal's ally. You cannot assume that someone else has reported criminal activity. Suspicion is the only reason needed for calling the police. Students are advised to call Campus Security at Ext. 696 or alternate Ext. 698 to report a crime, suspicious activity or other emergencies on Campus.

**Access to Campus Facilities**

College classrooms and facilities are open from 7:00 a.m. to 11:00 p.m. Monday through Friday, and from 8:00 a.m. to 3:00 p.m. during regularly scheduled class times on Saturday.

Facilities are open from 7:00 a.m. to 5:00 p.m., Monday through Friday when classes are NOT scheduled.

Any events scheduled beyond the above hours will be coordinated through the Vice President’s office.

During times when the College is not officially open, employees or individuals entering the facility should ensure that all entries are secured.

**Campus Law Enforcement**

Students and staff on the Harrison campus should notify the Physical Plant Director, Ext. 696 or alternate Ext. 698, whenever a crime or potential crime is observed. The Mt. Pleasant Campus should call the front desk at Ext. 221 or 223, or alternate Ext. 237.

Since the College is not large enough to support its own police department, the Clare County Sheriff’s Department (539-7166) or the Isabella County Sheriff's Department (772-5911) will be notified immediately by Campus Security for any crimes reported.

**Crime Reporting Procedures**

**IF YOU ARE ASSAULTED:** Call the Physical Plant Director at Ext. 696 or alternate Ext. 698, or the Isabella County Sheriff's Department (772-5911) as soon as possible. Try to remember as much about the person as possible. Important characteristics to include: sex, race, hair color (length and texture), body size, clothing description, scars and other noticeable markings, mode of travel, type of vehicle, color and license number. The Campus will be searched immediately for suspects and neighboring police agencies will be notified. In many incidents, the victim may already know the name of the person committing the assault.
IF YOU SEE A SUSPICIOUS PERSON: If you see anyone acting suspiciously, call the Physical Plant Director at once. Do NOT approach the person yourself. Report the type of suspicious activity and give a general description of the subjects (number of persons, sex, race, dress, vehicle, and location). The Physical Plant Director will investigate your report immediately. If all members of the campus community become security conscious and report suspicious activity, thefts and related incidents will be minimal. Remember—it is your responsibility, too!

IF YOU RECEIVE A BOMB THREAT: If you receive a bomb threat, it is important to obtain as much information from the caller as possible. Things to ask include: 1) location of bomb; 2) time of explosion; and 3) type of bomb. Observe the caller’s voice and any background noises you may hear. Such information may assist in identifying the caller. Call the Physical Plant Director immediately. DO NOT PANIC! The Sheriff will be notified immediately and will search the area involved and, if a device is found, notify trained personnel for removal. College authorities will determine if evacuation is required.

DRUG ABUSE POLICY AND REGULATIONS

Philosophy

The MMCC Board of Trustees certifies and pledges it will provide a drug-free workplace and learning environment for employees and students. This pledge is in compliance with the Federal Drug-Free Schools and Communities Act Amendment of 1989.

MMCC recognizes that clear evidence exists that the misuse and abuse of alcohol and other illicit drugs can erode the foundation of the College’s goals and objectives and can diminish the attainment of intellectual, social, physical, and moral growth and development. MMCC is committed to a healthy and productive college climate through referral and rehabilitation when possible.

Standards of Conduct

The MMCC Board of Trustees prohibits the possession, use, distribution, and unlawful manufacture of illegal drugs, narcotics or controlled substances on MMCC’s Campus. The College also abides by all local, state, and federal laws. Alcohol is prohibited on campus with the exception of the Campus house.

Health Risks

Various health risks are associated with the use of illicit drugs and the abuse of alcohol. Addiction to alcohol or other drugs is a progressive disease which, if untreated, is fatal. Health risks of alcohol and drug abuse have a wide range of consequences including but not limited to liver damage and disease, psychosis, brain damage, and heart disease. The physical consequences of such abuse are serious and can be life threatening.

The psychological and social consequences of substance use and abuse can be equally devastating. Loss of friends, loss of job, divorce, and the creation of a dysfunc-
College officers, employees or students who show signs of drug misuse or abuse will be supported, educated, and aided in reversing the disease process. Those so diagnosed shall receive the same consideration and opportunity for treatment that is extended to persons with other types of illness. No adverse effects to the officer’s, employee’s, or student’s status shall result based upon diagnosis itself or request for treatment; however, if the officer, employee, or student refuses to accept diagnosis and treatment, or fails to respond to treatment, and the result of such refusal or failure is such that job performance, appropriate behavior, or learning ability is affected, that person shall be considered in violation of College policies and will be subject to discipline in the same manner & magnitude as violators of other College policies.

The MMCC Board of Trustees has also authorized the establishment of an Employee Assistance Program for College employees. Drug counseling is available through the Program.

MMCC utilizes local Substance Abuse Assistance Agencies. Local assistance is available from:
- Human Aid, Inc. (Clare) -- 989/386-3405
- Human Aid, Inc. (Gladwin) -- 989/426-4551
- Mt. Pleasant Counseling Services (Isabella) -- 989/773-9665

Additional sources may be obtained by contacting the MMCC Counseling Office.

**SOCIAL PROBATION**

In joining the academic community, the student enjoys the right of freedom to learn and shares the responsibility in exercising that freedom. The student is expected to conduct her/himself in accordance with standards which are designed to perpetuate the educational purposes of the College. A student’s most essential right is the right to learn, and the College has a duty to promote learning. The student, in turn, has duties and responsibilities to other members of the Mid Michigan Community College community. The most important is to refrain from interfering with the rights and responsibilities of others to learn, teach, and effectively manage the institution.

Students are expected to respect the laws governing the community as well as the rules and policies of the College. Students should be familiar with all of the rules and regulations governing student conduct as set forth in this catalog and other official policy manuals. All rules and regulations pertain to the campus which is defined as any location where the College conducts classes.

Students are expected to act in a responsible manner that promotes an environment for learning. The following represent but are not limitations of examples that would constitute unacceptable student behavior and could result in the application of this policy:

1. Willful destruction, injury, or disruption of College property or operations.
2. Possession of alcoholic beverages, illegal drugs, or under the influence of these substances on campus.
3. Smoking in unapproved areas.
4. Possession of firearms, knives, or other weapons on campus.
5. Academic dishonesty, plagiarism, and cheating.
6. Sexual harassment as defined by the Michigan Civil Rights Act.
7. Discrimination on the basis of race, creed, color, sex, national origin, age, height, weight, arrest record, physical characteristics, or marital status.
8. Aggressive, hostile and/or disruptive behavior directed toward any College employee, student, or College guest.
9. Bringing a dependent child (children) to class/open lab or leaving a child (children) unattended in College facilities.

**DISCIPLINARY ACTION AND SOCIAL PROBATION**

The three forms of misconduct subject to disciplinary action are 1) violations of civil/criminal law, 2) disruption of the educational process and 3) violation of College rules, regulations and policies.

If a student’s conduct on Campus is improper and deemed a potential threat to the College or the College community (employees, students, or visitors), the College reserves the right to take any action that is appropriate including immediate and permanent dismissal from the College.

Persons officially associated with the College who willfully destroy or cause destruction of College property, or cause injury to a student or College employee or who disrupt the operation of the College will face immediate suspension. Please note:

Act No. 26, Public Acts of 1970, approved by the Governor June 2, 1970, and effective August 1, 1970, provides penalties for certain conduct at public institutions of higher education. No person shall enter or remain on the college property or premises, in buildings or other structures if it is determined by the chief administrator of the college or his/her designee that the person constitutes a clear and substantial risk of physical harm or injury to other persons or of damage to or destruction of the property of the institution, or an unreasonable prevention or disruption of the customary and lawful functions of the institution by occupying space necessary therefore, or by use of force or threat of force.
Administrative implementation of the social probation procedures involving students is the responsibility of the Dean of Student Services unless there is a conflict of interest. In these cases, the Vice President of Academic Services will designate a hearing officer.

**STUDENT DISCIPLINE PROCEDURES**

1. Within three days after the student has been apprised of the incident, a written notice from the Dean of Student Services or his/her designee will be sent to the mailing address of a student charged with violating the rules of conduct, advising of procedural due process. The Dean shall investigate the incident and meet with the student. An informal agreement on a disciplinary matter may be arrived at by consultation between the student and the Dean or appointed designee. The consultation may include the person making the charge but his/her presence shall be at the discretion of the Dean or appointed designee. The student will be advised of his/her rights (as outlined in the catalog) regarding the formal procedures available to him/her as follows:
   a. The student may plead no contest or admit the alleged violation and request that the hearing officer take whatever action the officer deems necessary.
   b. The student may deny the alleged violation, in which case the hearing officer can investigate and take appropriate action. The hearing officer may refer him/her to the Judicial Board which shall meet within three school days of the referral. Should the hearing officer choose not to refer the case to the Judicial Board, the student may request a hearing with the Judicial Board. The Judicial Board shall consist of two representatives from faculty, the VP of Academic Services, two students, and the hearing officer.
   c. The student will be notified of the misconduct, its consequences, and the arranged time for a hearing. Notice shall be given by first class mail to the student’s address as it appears on the student’s registration form. It will be the responsibility of the student to notify the Dean or the Judicial Board of any change in address.

2. Hearings shall be conducted in such a manner as to ensure full due process.
   a. Hearings shall be private. If more than one student is involved, each has the right to request a separate hearing.
   b. Procedural due process does not guarantee students the right to be represented by counsel in disciplinary cases, since campus proceedings are civil, not criminal. The institution may allow counsel if requested on a case-by-case basis. Counsel will also be allowed if it is determined by the hearing officer that counsel is necessary to ensure that a student receives a fair hearing.
   c. Any party may present written affidavits, exhibits, or witnesses who may be subject to cross examination by the other parties excluding counsel.
   d. The student who is charged bears all cost if he/she wishes a verbatim record or audio taping of the hearings.

3. The sanctions imposed by the Dean of Student Services or the Judicial Board may be as follows:
   a. Warning: Notice given, orally or in writing, that continuation or repetition of such conduct may be the cause for more severe sanction in the event of a violation of any College regulation or policy within a stated period of time.
   b. Censure: Written reprimand for violating specified regulations, including the possibility of receiving a more severe sanction in the event of a violation of any College regulation or policy within a stated period of time.
   c. Restitution: Reimbursement for damage to and/or misappropriation or misuse of College property. This may take the form of appropriate community service or other compensation.
   d. Suspension: Exclusion from class and/or other privileges or activities as set forth in the notice for a definite period of time, or as deemed appropriate.

4. The Judicial Board's decision will be sent to the student within three days of the hearing. If the student wishes to appeal the Judicial Board’s decision, a written appeal must be submitted to the President within five days of the hearing. The President shall review the record to this point and may elect to meet with the student. The President shall render a decision within five school days. The President’s decision is the last step in the institution’s appeal process and is final.

**STUDENT COMPLAINT POLICY**

Mid Michigan Community College is committed to helping students achieve their goals. Should a student have a concern/complaint, he/she is encouraged to discuss it with the appropriate MMCC personnel. The student may elect to issue a written complaint and to expect a written response from the appropriate administrator. Student complaint forms are available in all administrative offices.
SMOKING POLICY

To promote the health and well-being of its students, faculty and staff, the College has established a smoke-free environment in all its facilities and college-owned vehicles. Smoking is not permitted within fifty feet from doorways so marked; nor within ten feet of unmarked doorways, nor within any college building or college vehicle.

EMERGENCY PROCEDURES

For immediate emergency attention:

Harrison Campus: 911 or (989) 539-7166
(Clare County Sheriff)

Mt. Pleasant Campus: 911 or (989) 772-5911
(Isabella County Sheriff)

Should a student become seriously ill or injured while on campus during the normal workday (8:00 - 5:00), the Business Office on the Harrison Campus or the Main Office on the Mt. Pleasant Campus should be notified immediately. If possible, the instructor should stay with the injured (ill) student and send someone to the Business or Main Office to report the incident. The instructor should try to make the injured (ill) student as comfortable as possible.

If the emergency is after regular business hours, the night administrator on either campus (Rm. 268 in Harrison and the Main Desk in Mt. Pleasant) should be notified of any serious injury or illness. If no administrator can be found, the instructor will make the determination of whether the student should be transported to an Emergency Room.

The instructor should give emergency care based on their training (First Aid/CPR, ACLS). Improper care can exacerbate a serious condition.

Note: While it is always possible to make a judgement error during an emergency, it is better to err in behalf of safety. Hence, **IF IN DOUBT, CALL AN AMBULANCE IMMEDIATELY.**

Special Note: While the College has a number of instructors and staff qualified to give emergency care, there is a good possibility that they will not be on Campus when an emergency arises. Hence, an instructor can send a student to seek help from the College health staff but should handle the emergency situation from the standpoint that no qualified emergency caregivers are on Campus. Even if there is a qualified emergency care person at the scene, **THE COLLEGE IS NOT A HOSPITAL OR EMERGENCY CENTER AND THE OBJECTIVE OF IMMEDIATE TRANSPORTING TO A PROPER EMERGENCY SETTING MUST NOT BE DELAYED.**

HEALTH CARE SERVICES

At present, Mid Michigan Community College does not provide or operate any health care services. The student's responsibility is to maintain their own health care support services. Health care services are limited to Basic First Aid. If an injury or illness should arise during the operating times of the college, refer to the Emergency Procedures above.

ACCESS TO RECORDS

Mid Michigan Community College policy grants access by students to their educational records under conditions which conform to the Family Education Rights and Privacy Act of 1974 as amended, regulated by the appropriate federal guidelines. A copy of this policy may be obtained upon request from the Office of Enrollment Services.

Directory information will be routinely released unless a student informs the Office of Enrollment Services in writing during the first two weeks of each semester or summer session that any or all items should not be released without the student's prior consent. Directory information includes name, address, telephone number, date and place of birth, major field of study, participation in officially-recognized activities and sports, dates of attendance, degrees and awards received, and most recent previous educational agency or institution attended.

THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

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

1. The right to inspect and review the student's education records within 45 days of the day that MMCC receives a request for access.

   Students should submit to the Dean of Student Services written requests that identify the record(s) they wish to inspect. The Dean of Student Services will make arrangements for access and notify the student of the time and place where the records may be inspected. Such requests should be sent to:

   Dean of Student Services
   Mid Michigan Community College
   1375 S. Clare Avenue
   Harrison MI 48625

2. The right to request the amendment of the student's education records that the student believes is inaccurate or misleading.

   Student/parents may ask the college to amend a record they believe is inaccurate or misleading. They should write the Dean of Student Services; clearly identifying the part of the record they want changed, and specify why it is inaccurate or misleading.
If the college decides not to amend the record as requested by the student/parent, the college will notify the student/parent of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

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

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll. (NOTE: FERPA requires an institution to make a reasonable attempt to notify the student of the records request unless the institution states in its annual notification that it intends to forward records on request.)

4. Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by MMCC to comply with the requirements of FERPA.

The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
600 Independence Avenue, SW
Washington, DC 20202-4605
One of 18 such centers located across the State of Michigan, the M-TEC of Mid Michigan Community College is housed in a beautiful new, full-featured facility on the Harrison campus. The center is designed with a quality learning environment and flexibility in mind. The accent is on providing low cost skill set development for high pay high demand training based on industry standards. These standards reflect current certification and qualification requirements of local industries.

Program timing and content are adaptable to the students training needs. Each training activity is modular, offering students flexibility through open entry open exit or “on demand” training. A student may choose from a variety of learning modules in the Industrial or Construction Trades. Once a student has met with an Instructional Coordinator to go over his or her chosen area of study, a learning plan will be developed. The learning plan includes a date of completion, and the student may begin taking modularized courses.

All of our programs are hands-on in theory and concept, certificate programs developed to industry standards, which in many instances allow individuals to work toward apprenticeships or national certification. Upon successful completion of the module, a student will receive a certificate of completion. These non-credit certificates will be offered in any of the Industrial or Construction trades such as Hydraulics, Pneumatics, Plastics, Electronics, Robotics, Construction, Electrical, Masonry, Plumbing and many others.
**BASIC CONSTRUCTION SKILLS**

**Basic Safety**
This interactive training unit is designed to familiarize trainees with hazards they may encounter on the job and ways they can protect themselves from these hazards. After completing this unit, trainees should be able to describe causes of on-the-job accidents, explain how company safety policies can help prevent accidents, describe actions that can be taken to make a work site safe, and explain how workers can protect themselves from electrical hazards and fire hazards.

**Basic Math**
This interactive training unit is designed to familiarize trainees with basic mathematical applications that can be used on the job. After completing this unit, trainees should be able to interpret measurements that include fractions and decimal values, measurements in English and metric units, and perform mathematical applications involving fractions and decimals. They should also be able to calculate dimensions associated with rectangles, triangles, and circles.

**Introduction to Hand Tools**
This interactive training unit is designed to familiarize trainees with the proper use of various types of hand tools. After completing this unit, trainees should be able to explain how to properly use hammers, sledgehammers, wedges, punches, ripping bars, nail pullers, screwdrivers, wrenches, socket wrenches, levels, plumb bobs and chalk lines, squares, rulers, measuring tapes, saws, files, chisels, utility knives, pliers, bench vises, and C-clamps.

**Introduction to Power Tools**
This interactive training unit is designed to familiarize trainees with the proper use of various types of power tools. After completing this unit, trainees should be able to explain how to properly use and maintain power drills, power saws, power grinders, jackhammers, and hydraulic jacks. A glossary of key terms is included at the end of the unit.

**Introduction to Blueprints**
This interactive training unit is designed to familiarize trainees with the basic features of construction blueprints. After completing this unit, trainees should be able to describe various types of blueprints, identify lines, symbols, and abbreviations that are commonly found in blueprints, and explain how to properly care for blueprints.

**Basic Rigging**
This interactive training unit is designed to familiarize trainees with the basic principles associated with moving materials and equipment from one place to another. After completing this unit, trainees should be able to describe the functions of various types of rigging equipment and explain how to select and inspect equipment for a job that involves rigging.

**MASONRY**

**Introduction to Masonry (5 Hours)**
Introduces the trainee to the historic and current methods and procedures used in the masonry trade. Brick and block manufacturing is explained along with the types of brick and block that are currently used in various types of masonry construction. Knowledge, skill, and ability requirements of a mason are also described.

**Safety Requirements (10 Hours)**
Provides an overview of the basic safety practices and requirements found in the masonry trade. The trainee is directed in the use of appropriate personal protective equipment, handling hazardous materials, and general work safety.

**Mathematics, Drawings, & Specifications (10 Hours)**
Guides the trainee in the process of using mathematics to figure distances, areas, and volumes for masonry construction work; describes the information typically found on drawings and construction plans for residential construction; and addresses the specifications used in the construction process. This module includes a set of drawings.

**Mortar (10 Hours)**
Explains the properties of mortar and the components that make up the mixture; describes the chemical and physical properties of cement, sand, and various types of admixtures; and discusses procedures for storing materials and mixing mortar.

**Masonry Units & Installation Techniques (75 Hours)**
Introduces the methods and procedures used in masonry unit installation. Topics include basic techniques for laying brick and block, using mortar to bond masonry units, and patterns. Hands-on skill development in constructing wythes and courses is emphasized.
CARPENTRY LEVEL ONE

Orientation to the Trade (2.5 Hours)
Reviews the history of the trade, describes the apprentice program, identifies career opportunities for carpentry and construction workers, and lists the responsibilities and characteristics a member of the trade should possess.

Wood Bldg. Materials/Fasteners/Adhesives (7.5 Hrs)
Describes the sources and uses of various softwoods and hardwoods, explains the grading systems for lumber and plywood, and discusses the composition and uses of various engineered sheet materials and laminated lumber products. Also describes the many kinds of fasteners and adhesives used with wood and masonry.

Hand and Power Tools (20 Hours)
Provides detailed descriptions & explanations of the use of the many hand-operated & power tools used by carpenters, including powder-actuated fasteners. Emphasis is on safe & proper operation of tools, including care & maintenance.

Floor Systems (25 Hours)
Covers framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials.

Wall and Ceiling Framing (20 Hours)
Describes the procedures for laying out and framing walls and ceilings, including roughing-in door and window openings, constructing corners and partition T's, bracing walls and ceilings, and applying sheathing.

Roof Framing (37.5 Hours)
Describes the various kinds of roofs. Contains instructions for laying out rafters for gable roof, hip roofs, and valley intersections. Covers both stick-built and truss-built roofs.

Windows and Exterior Doors (12.5 Hours)
Describes the various types of windows, skylights, and exterior doors, and provides instructions for installation. Also, instructions for installing weather-stripping & locksets.

CARPENTRY LEVEL TWO

Reading Plans And Elevations (20 Hours)
This module builds upon the basic information in the Introduction To Blueprints module studied in the Core curricula. Trainees will learn techniques for reading & using blueprints & specifications with an emphasis placed on those drawings & types of information that are relevant to the carpentry trade. Also, introduction to quantity takeoffs.

Site Layout 1-Distance Measurements & Leveling (22.5 Hrs)
Covers the principles, equipment, and methods used to perform the site layout task of distance measurement & differential leveling. Also, information about the layout responsibilities of surveyors, field engineers, & carpenters; understanding & using site/plot plan drawings; & methods used for on-site communication.

Intro To Concrete & Reinforcing Materials (10 Hrs)
Describes the properties, characteristics, and uses of various types of cement, aggregates, & other materials that, when mixed together, form different types of concrete. Procedures for concrete volume estimates & testing of freshly mixed concrete are covered, along with methods & materials for curing concrete. Reinforcement materials used in concrete, such as reinforcement bars, bar supports, & welded-wire fabric are described & defined.

Foundations And Flatwork (15 Hours)
Covers the construction of forms for continuous, stepped continuous, pier, and grade beam concrete footings. Also, edge forms used for on-grade concrete slabs & similar structures. Forming terms, parts of forms, and procedures for constructing basic footing & edge forms are included.

Concrete Forms (32.5 Hours)
Covers the applications & construction methods for various types of job-built forms, including wall, column, slab-&-beam, & stair forms. Instructor’s Guide includes instruction sheets for construction of various forms.

Reinforcing Concrete (15 Hours)
Explains the selection & uses of different types of reinforcing materials. Describes general requirements for cutting, bending, splicing, & tying reinforcing steel, as well as placement of the steel in various types of footings, columns, walls, & slabs.

Handling And Placing Concrete (22.5 Hours)
Covers the tools, equipment, & procedures required for handling, placement, & finishing of concrete at the job site. Also, general information about joints made in concrete structures, the use of joint sealants, & form removal procedures. Safety procedures for handling, placing & finishing concrete are emphasized.

Patented Forms (22.5 Hours)
Covers the types of manufactured forms & form hardware systems used in the construction of walls, columns, deck & roof slabs, beams & girders, culverts, & highways. Includes coverage of flying forms, slipforms, shoring, & architectural finishes.

Tilt-Up Wall Systems (15 Hours)
Reviews the history and applications of tilt-up wall systems and describes the procedures for forming, finishing, and erecting tilt-up wall panels.

ELECTRICAL LEVEL ONE

Electrical Safety
Covers safety rules & regulations for electricians. Trainees learn the necessary precautions to take for various electrical hazards found on the job. Also, OSHA mandated lockout/tagout procedure.

Hand Bending
Introduction to conduit bending & installation. Covers techniques for using hand-operated & step conduit benders, as well as cutting, reaming, & threading conduit.
Fasteners and Anchors
Covers the hardware & systems used by an electrician to mount & support boxes, receptacles, & other electrical components. Trainees learn the various types of anchors & supports, their applications, & safe.

Electrical Theory One
General introduction to electrical concepts used in Ohm’s Law applied to DC series circuits. Includes atomic theory, electromotive force, resistance, & electric power equations.

Electrical Theory Two

Electrical Test Equipment
Focuses on proper selection, inspection, use, & maintenance of common electrical test equipment. Trainees get to practice using many of the instruments while learning the appropriate test procedures and safety rules.

Introduction to the National Electrical Code
Provides a navigational roadmap for using the NEC. Trainees are introduced to the layout of the NEC & the types of information found within the code book. Trainees are able to practice finding information using easy-to-follow procedure.

Raceways, Boxes, and Fittings
Introduces the types & applications of raceways, wireways, & ducts. The appropriate NEC requirements are stressed.

Conductors
Focuses on the types & applications conductors & covers proper wiring techniques. Appropriate NEC requirements are stressed.

Introduction to Electrical Blueprints
Focus on electrical prints, drawings, & symbols. Trainees learn the types of information they can find on schematics, one-lines, & wiring diagrams.

Wiring: Commercial and Industrial
Covers the electrical devices & wiring techniques common to commercial & industrial construction & maintenance. Mounting devices, making splices, & installing receptacles are all practiced in the process of learning. The appropriate NEC requirements are stressed.

Wiring: Residential
Covers the electrical devices & wiring techniques common to residential construction & maintenance. Trainees also practice making service calculations. Stresses appropriate NEC requirements.

Grounding
Focuses on the purpose of grounding and bonding electrical systems. NEC regulations are thoroughly covered.

Conduit Bending
Covers all types of bends in all sizes of conduit up to 6 inches. Focus is placed on mechanical, hydraulic, & electrical benders.

Boxes and Fittings
An NEC-driven module that explains how to select & size outlet boxes, pull boxes, & junction boxes.

Conductor Installations
Covers the transportation, storage, & set-up of cable reels; methods of rigging; & procedures for complete cable pulls in raceways & cable trays.

Cable Tray
Focuses on NEMA & NEC installation requirements for cable tray, including modifications & cable installations.

Conductor Terminations
Describes methods of terminating & splicing conductors of all types and sizes, and preparation and taping of conductors.

Installation of Electric Services
Covers methods & techniques for both single & three-phase services, including metering equipment & NEC regulations.

Circuit Breakers and Fuses
Describes fuses & circuit breakers along with their practical application. Short-circuit calculation is also covered.

Contactors and Relays
Gives basic descriptions of various types of contactors & relays, along with their practical applications.

Electric Lighting
Introduces the basic principals of human vision & the characteristic of light. The focus of the module is on the handling & installation of the different kinds of lamps (Incandescent, fluorescent & HID) & lighting fixtures (surface-mounted, recessed, suspended, & track lighting.

INDUSTRIAL TRADES LEVEL I

Fundamentals of Hydraulics
This introductory open entry / open exit course covers the science that deals with the laws governing water or other liquids in motion, & their applications in practical or applied technology. It will familiarize the student with the theory, concept, & modes of operation of hydraulic components. This course is a systems approach to hydraulic circuit development & operation. The course will cover symbols, theory, & lab application.

Fundamentals of Pneumatics
This introductory open entry / open exit course will familiarize the student with the theory, concepts, & modes of operation of pneumatic components. This course is a systems approach to air logic circuit development & functionality. The course will cover symbols, theory, & lab application.
**Plastics Forming**
This introductory open entry / open exit course covers the science that deals with plastics forming & their applications in practical or applied technology. It will familiarize the student with theory, concept, & modes of operation of injection, thermoform, & extrusion machines. This course is a systems approach to plastics forming & operation of high temperature forming equipment. The course will cover precision gages, materials used in the forming industry, theory, & lab application.

**Fundamentals of Electrical**
This introductory open entry / open exit course covers the science that deals with electrical components & their applications in practical or applied technology. It will familiarize the student with the theory, concept. Course content covers Ohm's Law, electromagnetism, instrumentation, power supplies, output devices, & many other aspects of electrical fundamentals.

**Mechanical Systems**
This introductory open entry / open exit course covers the science that deals with mechanical components & their applications in practical or applied technology. It will familiarize the student with the theory, concept, and modes of operation of gear trains, drives, cams, & linkages. Theory & concept of physical properties studied include force, work, power, friction, kinetic, & potential energy. The theory is enhanced through lab exercises.

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**INDUSTRIAL TRADES LEVEL II**

**Level II Hydraulics**
The intermediate open entry / open exit course covers advanced skills that deal with physical properties of industrial hydraulic systems. This course is a systems approach to hydraulic circuit development, maintenance, operation, and troubleshooting.

**Level II Pneumatics**
This performance based open entry / open exit course allows for in depth training on troubleshooting and repair of common industrial pneumatic systems. The curriculum will train the student in principles, applications, physical properties, and maintenance of modern pneumatic systems.

**Level II Electrical**
This performance based open entry / open exit course allows for in depth training on electrical systems & the repair of common industrial electrical systems. The curriculum will train the student in principles, applications, & maintenance of electrical systems.

Please Note: M-TEC is developing many additional programs in both the Construction and Industrial Trades. Please refer to the college schedule for current offering information.
III. ACADEMIC PROGRAMS

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Mid Michigan Community College offers one-year certificates and two-year associate degrees. Also available are transfer programs, career programs, and general studies programs.

Transfer programs are planned for students intending to transfer credits earned at Mid Michigan Community College to baccalaureate-degree-granting institutions. The College offers the first two years of many four-year programs. Transfer guides for many institutions are available in the counseling/advising office at both MMCC campus locations. However, students planning to transfer are strongly encouraged to consult early with the transfer receiving institution for specific course selection.

The College is a signatory to the Michigan Association of Collegiate Registrars and Admissions Officers agreement (MACRAO). Students may meet requirements without obtaining an Associates degree. See page 50 in this catalog for detailed information.

Career programs are designed to provide students with the necessary skills and related knowledge to qualify for skilled, technical, and semi-professional positions in business, industry, and the allied health fields.

General studies programs are designed to allow students not necessarily planning to transfer to a four-year institution an opportunity to receive educational experiences in a variety of subject-matter areas.

In addition to the above programs, Mid Michigan Community College offers a variety of continuing education and community service courses, workshops, and seminars.

**GENERAL EDUCATION REQUIREMENTS**

In August of 1993 the MMCC Board of Trustees approved a new General Education program that reflects the college’s commitment to providing our students with a first-class education to meet the challenges of tomorrow. Any student who enrolls in an associate degree program at MMCC is required to fulfill the competencies of the General Education program. General Education requirements may be met by completing the required course work, meeting equivalent competency (as stated below) or through Credit by Examination.

Students may not register for 200 Level General Education Core courses until all of the 100 Level competencies are met. Students should consult with counselors or faculty advisors to plan their academic program.

All students entering MMCC from summer 1993 session and beyond must meet the General Education Requirement.

**LEVEL I**: CIS 100, ENG 111, MAT (as specified on the degree) & SPE 101 or 257

**LEVEL II**: HUM 200, SCI 200, and SSC 200

Prerequisites: LEVEL I General Education courses

SCI 200 -or- 8 hrs in Science; 1 of which is a natural science & 1 in physical science (one class w/lab required)

SSC 200 -or- 9 hrs in 2 Social Science disciplines.

HUM 200 -or- 9 hrs of Humanities with at least 3 credits at 200 level -or- 6 hrs of Humanities & 3 hrs Fine Arts one of which is at the 200 level

Students who transfer to MMCC after completing a degree at an accredited institution will be given the following exemptions:

1. From a Two-Year Institution: Students transferring to MMCC with a two-year degree from an accredited institution will be exempt from 100 Level General Education requirements. 200 Level requirements will be determined in the transcript evaluation process.

2. From a Four-Year Institution: Students transferring to MMCC with a four-year degree from an accredited institution will be exempt from both the 100 and 200 Level General Education requirements.

Assessment of student academic achievement is an institutional requirement and may be required in General Education courses.
DISTRIBUTION GROUPS

All regular college courses offered by Mid Michigan Community College which apply toward associate degrees and certificate programs are arranged into Distribution Groups. Many of the programs specify a certain number of prescribed and elective courses in the various groups.

The groups are as follows:

I Communication Skills
   English 101, 110, 111, 222, 225, Journalism, Speech

II Science and Mathematics
   Mathematics: Mathematics
   Natural Science: Biology, Environmental Science
   Physical Science: Chemistry, Computer Science, Geology, Physical Science, Physics, Science

III Social Science
   Anthropology, Economics, Geography, History 211, 212, 223, 251, 252, Political Science, Psychology, Social Science, Sociology

IV Humanities and Fine Arts
   Fine Arts: Art, Music, Theatre (except MUS 275, TAI 275)
   Humanities: English 112, 201, 202, 205, 206, 211, 212, 213, 281, French, German, History 101, 102, Humanities, Japanese, MUS 275, Native American Language, Philosophy, Spanish, TAI 275

V Applied Arts & Sciences

VI Health/Physical Education
   Health Education, Physical Education

MACRAO AGREEMENT

The College is a signatory of the Michigan Association of Collegiate Registrars and Admissions Officers Agreement (MACRAO), which allows students completing the MACRAO requirements to transfer into 4-year institutions which are also signatories with 30 hours of general education requirements met.

To satisfy MACRAO requirements at Mid Michigan Community College, students must complete:

1. ENG 111 and ENG 222;
2. Eight hours of science and mathematics (Group II) electives in more than one discipline, with one course being a laboratory science. CPS and MAT courses do not fulfill laboratory requirements;
3. Eight hours of social sciences (Group III) electives in more than one discipline; and
4. Eight hours of humanities and fine arts (Group IV) electives in more than one discipline.

AND

At Least 12 of these credit hours must be taken at MMCC

Students graduating with an Associate in Arts, Associate in Science, or Associate in Business Administration transfer degrees will automatically have the statement "MACRAO Requirements Satisfied" affixed to their transcripts provided they have filled the courses required on these programs.

Students not graduating, or graduating with a degree other than arts or sciences who wish to have their transcripts reflect that they have met MACRAO requirements must request in writing on the "Application for Graduation" form that this be done.

*Certain signatories have qualifications to the MACRAO agreement. Transfer students are advised to check with their transfer receiving institution for specific course selection.

CANCELLATION OF COURSES AND PROGRAMS

The courses and programs listed in this publication generally represent those presently available through Mid Michigan Community College; however, new courses are being developed continuously and occasionally unavoidable circumstances necessitate the removal of courses and programs from the College's current offerings. In addition, not all courses and programs are available during any given semester. Please check the College's current schedule for offerings.
The transfer programs offered in the Arts and Sciences Division provide a foundation for further study toward the baccalaureate degree at four-year institutions through Associate in Arts and Associate in Science degree programs. These programs have been carefully designed for students wishing to pursue the first half of the baccalaureate degree at Mid Michigan Community College. After completion of the associate degree, students will transfer to the four-year institution. Students are encouraged to select the four-year institution into which they wish to transfer as early as possible. Then, working with Mid Michigan Community College counselors, they can carefully check to make sure the degree requirements of the four-year school are being met.

## ARTS AND SCIENCES

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<td>(2+2) Fisheries/Wildlife Management - LSSU</td>
<td>65</td>
</tr>
</tbody>
</table>
## Associate in Arts Degree

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

### LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

### LEVEL II General Education Requirements:

<table>
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<tr>
<th>Categories</th>
<th>Credit Hours</th>
<th>Courses</th>
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<td><strong>Social Sciences (Group III)</strong></td>
<td>15</td>
<td>POL 201 (Intro to American Government) Plus 12 additional credit hours, which must be taken from at least two different disciplines.</td>
</tr>
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<td><strong>Humanities and Fine Arts (Group IV)</strong></td>
<td>12</td>
<td>HUM 200 (Modernity &amp; Culture) Plus 9 additional credit hours, which must be taken from at least two different disciplines.</td>
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<td><strong>Applied Arts and Sciences (Group V)</strong></td>
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<td>Electives from Groups I, II, III, IV and VI. Students may earn no more than 2 credit hrs in Group VI.</td>
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</tbody>
</table>

* Most universities require demonstrated competency by completing these courses with a grade of “C” or better.

† Prerequisite required - see course description

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## Associate in Arts Degree Psychology

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

### LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

### LEVEL II General Education Requirements:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Credit Hours</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Sciences (Group III)</strong></td>
<td>24</td>
<td>POL 201 (Intro to American Government) Plus 6 additional hours other than PSY.</td>
</tr>
<tr>
<td><strong>Humanities and Fine Arts (Group IV)</strong></td>
<td>9</td>
<td>HUM 200 (Modernity &amp; Culture) Plus 6 additional credit hours, which must be taken from at least two different disciplines.</td>
</tr>
<tr>
<td><strong>Applied Arts and Sciences (Group V)</strong></td>
<td>3</td>
<td>CIS 100 (Intro to Info Processing Systems)</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td>7</td>
<td>Electives from Groups I, II, III, IV and VI. Students may earn no more than 2 credit hrs in Group VI.</td>
</tr>
</tbody>
</table>

* Most universities require demonstrated competency by completing these courses with a grade of “C” or better.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**LEVEL II General Education Requirements:**
- Humanities, Science, Social Sciences
- Communication Skills (Group I) - 24 credit hours
  - ENG 111\* † (3) Freshman English Composition
  - ENG 222\* † (3) Expository Writing & Research
  - SPE 101\* † (3) Public Speaking
  - SPE 257 (3) Public Speaking
  - SPE 251 † (3) Foundations of Communication
  - SPE 253 (3) Small Group Communication
  - SPE 254 (3) Organizational Communication
  - SPE XXX (6) Communication Studies Electives (see below for selections)

**Science and Mathematics (Group II) - 9 credit hours**
- Natural or Physical Science
- Mathematics (105 or higher) *
- SCI 200 † (3) Science, Technology & Society

**Social Sciences (Group III) - 9 credit hours**
- SSC 200 † (3) The Social Sciences & Contemporary America
- PSY 101 (3) Intro to General Psychology
- Plus 3 additional credit hours.

**Humanities and Fine Arts (Group IV) - 9 credit hours**
- HUM 200 † (3) Modernity & Culture
- Plus 6 additional credit hours, which must be taken from at least two different disciplines.

**Applied Arts and Sciences (Group V) - 3 credit hours**
- CIS 100 † (3) Intro to Info Processing Systems

**Electives - 8 credit hours**
- Electives from Groups I, II, III, IV and VI.

**Communication Studies Electives - 6 cr hrs (above)**
- SPE 195 (3) Intercultural Communication
- SPE 261 (3) Interpersonal Communication
- SPE 263 (3) Professional Interviewing
- SPE 265 (3) Theories of Persuasion
- SPE 267 (3) Nonverbal Communication
- SPE 270-279 † (1-6) Special Topics in Communication
- SPE 285 † (1-3) Directed Activities in Forensics
- SPE 290 † (1-3) Internship in Communication Studies

* Most universities require demonstrated competency by completing these courses with a grade of “C” or better.

† Prerequisite required - see course description
Associate in Arts Degree

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements:
- Communication Skills (Group I) - 9 credit hours
  - ENG 111*  (3) Freshman English Composition
  - ENG 222*  (3) Expository Writing & Research
  - SPE 101*  (3) Fundamentals of Communication OR SPE 257  (3) Public Speaking
- Science and Mathematics (Group II) - 9 credit hours
  - Natural or Physical Science
  - Mathematics (105 or higher)* Recommend: MAT 212
  - SCI200  (3) Science, Technology & Society

Social Sciences (Group III) - 27 credit hours
- POL 201  (3) Intro to American Government
- SOC 101  (3) Principles of Sociology
- SOCXXX  (12) Group III Electives (9)

Humanities and Fine Arts (Group IV) - 9 credit hours
- HUM 200†  (3) Modernity & Culture
  Plus 6 additional credit hours, which must be taken from at least two different disciplines.

Applied Arts and Sciences (Group V) - 3 credit hours
- CIS 100†  (3) Intro to Info Processing Systems

Electives - 5 credit hours
- Recommend Group III

* Most universities require demonstrated competency by completing these courses with a grade of “C” or better.
† Prerequisite required - see course description

Associate in Arts Degree

Theatre

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements:
- Communication Skills (Group I) - 9 credit hours
  - ENG 111*  (3) Freshman English Composition
  - ENG 222*  (3) Expository Writing & Research
  - SPE 101*  (3) Fundamentals of Communication OR SPE 257  (3) Public Speaking
- Science and Mathematics (Group II) - 9 credit hours
  - Natural or Physical Science
  - Mathematics (105 or higher)* Recommend: MAT 212
  - SCI200  (3) Science, Technology & Society

Social Sciences (Group III) - 9 credit hours
- POL 201  (3) Intro to American Government
- Plus 6 additional credit hours, which must be taken from at least two different disciplines.

Humanities and Fine Arts (Group IV) - 24 credit hours
- HUM 101  (3) World of Creativity I
- HUM 102  (3) World of Creativity II
- MUSXXX  (5) MUS Elective
- TAI277  (4) Stagecraft and Stagelighting
- TAI287  (3) Costuming
  Selections:  (6) TAI 204, 205, 206, 207, 208

Applied Arts and Sciences (Group V) - 3 credit hours
- CIS 100†  (3) Intro to Info Processing Systems

Electives - 8 credit hours
- Electives from Groups I, II, III, IV and VI.
- Students may earn no more than 2 credit hrs in Group VI.
- An art class is highly recommended, especially for those interested in costuming or scene design.

* Most universities require demonstrated competency by completing these courses with a grade of “C” or better.
† Prerequisite required - see course description
### Associate in Arts Degree

#### Visual Arts

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I** General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**LEVEL II** General Education Requirements:
- **Humanities, Science, Social Sciences**
  - Communication Skills (Group I) - 9 credit hours
    - ENG 111* † (3) Freshman English Composition
    - ENG 222* † (3) Expository Writing & Research
    - SPE 101* (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking
  - Science and Mathematics (Group II) - 9 credit hours
    - Natural or Physical Science
    - Mathematics (105 or higher) *
    - SCI 200 † (3) Science, Technology & Society
  - **Social Sciences (Group III) - 9 credit hours**
    - SSC 200 † (3) The Social Sciences & Contemporary America
    - Plus 6 additional credit hours, from at least 2 disciplines.
  - **Humanities and Fine Arts (Group IV) - 27 credit hours**
    - ART 105 (3) Drawing I - Introductory
    - ART 115 (3) Design I
    - HUM 101 (3) World of Creativity I
    - HUM 102 (3) World of Creativity II
    - ART XXX (15) Select from: ART 110, 130, 135, 205, 210, 215, 220, 230, 235, 280
  - **Applied Arts and Sciences (Group V) - 3 credit hours**
    - CIS 100 † (3) Intro to Info Processing Systems
    - **Electives - 5 credit hours**
      - Electives from Groups I, II, III, IV and VI.

* Most universities required demonstrated competency by completing these courses with a grade of “C” or better.

† Prerequisite required - see course description

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### Associate in Arts Degree

#### Elementary Education - SVSU

You, as a student, are responsible for meeting requirements for your curriculum. Please see a counselor/ advisor for consultation and current program guides.

Also, for more information on course requirements and selecting electives based on your chosen minors, see Saginaw Valley State University’s Catalog.
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I** General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**LEVEL II** General Education Requirements: Humanities, Science, Social Sciences

**Communication Skills (Group I) - 9 credit hours**
- ENG 111* (3) Freshman English Composition
- ENG 222* (3) Expository Writing & Research
- SPE 101* (3) Fundamentals of Communication OR
- SPE 257 (3) Public Speaking

**Science and Mathematics (Group II) - 24 credit hours**
- BIO 221 † (3) Nature Study
- MAT 118* † (3) Math for Elementary Teachers I
- MAT 218 † (3) Math for Elementary Teachers II
- PSC 102 † (4) Introductory Physical Science OR
- CHM 105 † (4) Introductory Chemistry

Select two from: BIO 101, GEL 101, PSC 101

**Social Sciences (Group III) - 9 credit hours**
- HIS 211 (3) History of the U.S. I OR
- HIS 212 (3) History of the U.S. II
- POL 201 (3) Intro to American Government

Select one from: PSY 101, SOC 101, ANT 170, ECO 110

**Humanities and Fine Arts (Group IV) - 9 credit hours**
Select (9) credits from at least two different disciplines:
- ENG 202, 205, 206, PHL 220, MUS 131, 275, ART 245, SPN 101, 102, FRN 101, 102, GER 101, 102

**Applied Arts and Sciences (Group V) - 3 credit hours**
- CIS 100 † (3) Intro to Info Processing Systems

**Education (Group VII) - 3 credit hours**
- ELE 107 (3) Introduction to Teaching

**Electives - 9 credit hours**
Electives from Groups I, II, III, IV and VI.
Students may earn no more than 2 cr hours in Group VI.
Recommend: PSY 212, SPN 101, 102, PHL 220, MUS 131, 275

*CMU requires demonstrated competency by completing these courses with a grade of “C” or better.

**NOTE:** Students are required to present evidence of at least 90 clock hours of experience working with children or youth, of which 45 hours must be in a K-12 classroom situation, prior to their admission to the Teacher Education Program. A minimum 2.5 CMU GPA is required to be considered for admission to CMU’s Teacher Education Program. This is a limited enrollment program. Further admission requirements information should be obtained from the CMU Teacher Education Student Services, 203 Ronan Hall, 989/774-3308. Students wishing to pursue an Elementary Education degree at an institution other than CMU should consult a MMCC counselor for assistance in program planning.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

### LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

### LEVEL II General Education Requirements: Humanities, Science, Social Sciences

#### Communication Skills (Group I) - 9 credit hours
- ENG 111* † (3) Freshman English Composition
- ENG 222* (3) Expository Writing & Research
- SPE 101* (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

#### Science and Mathematics (Group II) - 11 credit hours
- MAT 105* † (3) Intermediate Algebra
- BIO 101 (4) College Biology
- Select one: CHM 105, CHM 111, GEL 101, PHY 105, PHY 211, PSC 101, or PSC 102

#### Social Sciences (Group III) - 15 credit hours
- HIS 211 (3) History of the United States I OR HIS 212 (3) History of the United States II
- POL 201 (3) Intro to American Government
- PSY 101 (3) Introduction to General Psychology
- PSY 212 † (3) Developmental Psychology
- Elective (3)

#### Humanities and Fine Arts (Group IV) - 12 credit hours
- PHL Elective (3)
- Elective (3) Select one from: ENG 201, 202, 205, 206
- Electives (6) Select from: ART, MUS, TAI, SPN 101, 102, FRN 101, 102

#### Applied Arts and Sciences (Group V) - 3 credit hours
- CIS 100 † (3) Intro to Info Processing Systems

#### Education (Group VII) - 3 credit hours
- SED 107 (3) Introduction to Teaching

#### Electives - 10 credit hours
- Electives from Groups I, II, III, IV and VI.
- Students may earn no more than 2 cr hours in Group VI. Recommend: SPN 101, 102

*CMU requires demonstrated competency by completing these courses with a grade of “C” or better.

**NOTE:** Students are required to present evidence of at least 90 clock hours of experience working with children or youth, of which 45 hours must be in a K-12 classroom situation, prior to their admission to the Teacher Education Program. A minimum 2.5 CMU GPA is required for admission to CMU’s Teacher Education Program. This is a limited enrollment program. Further admission requirements information should be obtained from the CMU Teacher Education Student Services, 203 Ronan Hall, 517/774-3308. Students wishing to pursue a Secondary Education degree at an institution other than CMU should consult a MMCC counselor for assistance in program planning.

† Prerequisite required - see course description

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### Associate in Applied Science Degree

**Criminal Justice - Corrections**

**4 yr. Transfer Program**

See PAGE 78

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### Associate in Applied Science Degree

**Criminal Justice - Law Enforcement**

**4 yr. Transfer Program**

See PAGE 78

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### Associate in Applied Science Degree

**Criminal Justice - Law Enforcement - SVSU**

**4 yr. Transfer Program**

See PAGE 79
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

Communication Skills (Group I) - 9 credit hours
- ENG 111 † (3) Freshman English Composition
- ENG 222 † (3) Expository Writing & Research
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

Science and Mathematics (Group II) - 12 credit hours
- SCI 200 † (3) Science, Technology & Society
- MAT 212 † (3) Intro to Probability & Statistics
- MAT 116 † (3) Business Mathematics I AND MAT 216 † (3) Business Mathematics II OR MAT 126* † (5) Calculus I

Social Sciences (Group III) - 12 credit hours
- ECO 201 (3) Principles of Economics (Macro)
- ECO 202 (3) Principles of Economics (Micro)
- POL 201 (3) Intro to American Government OR ECO 110 (3) Economics & Society OR SOC 101 (3) Principles of Sociology
- Elective (3) other than ECO

Humanities and Fine Arts (Group IV) - 9 credit hours
- HUM 200 † (3) Modernity & Culture
- Plus 6 additional credit hours, from 2 disciplines.

Applied Arts and Sciences (Group V) - 17 credit hours
- CIS 100 † (3) Intro to Info Processing Systems Accounting, Business, Computer Information Systems, and Office Information Systems requirements are to be determined with your counselor depending upon the college or university into which you plan to transfer.

Electives - 3 credit hours
- Electives from Groups I, II, III, IV, V (ACC, BUS, CIS or OIS) and VI.
- Students may earn no more that 2 credit hrs in Group VI.

*Requirement varies with transferring school - please check with an advisor

Associate in General Studies Degree

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

Communication Skills (Group I) - 9 credit hours
- ENG 111 † (3) Freshman English Composition
- ENG 222 † (3) Expository Writing & Research
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

Science and Mathematics (Group II) - 9 credit hours
- SCI 200 † (3) Science, Technology & Society
- Mathematics (105 or higher)
- Elective (3)

Social Sciences (Group III) - 9 credit hours
- SSC 200 † (3) The Social Sciences & Contemporary America
- Electives (6)

Humanities and Fine Arts (Group IV) - 9 credit hours
- HUM 200 † (3) Modernity & Culture
- Electives (6)

Applied Arts and Sciences (Group V) - 12 credit hours
- CIS 100 † (3) Intro to Info Processing Systems
- Electives (9)

Electives - 14 credit hours

NOTE: This transfer program does not fulfill MACRAO requirements unless electives taken from Groups III and IV are taken in at least two different disciplines per group.

† Prerequisite required - see course description
### Associate in Science Degree

#### Biology

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I**

**General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**FIRST SEMESTER (Fall) - 18 credit hours**
- BIO 101 (4) College Biology
- CHM 111 † (4) General College Chemistry I
- ENG 111 † (3) Freshman English Composition
- MAT 124 † (5) Precalculus OR MAT 126 † (5) Calculus

**SECOND SEMESTER (Winter) - 16 credit hours**
- CHM 112 † (4) General College Chemistry II
- CIS 100 † (3) Intro to Info Processing Systems
- SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking
- Group III Elective (3)
- Group IV Elective (3)

**LEVEL II**

**General Education Requirements: Humanities, Science, Social Sciences**

**THIRD SEMESTER (Fall) - 17 credit hours**
- CPS 175 † (3) Computer Programming I OR CPS 180 † (3) FORTRAN Programming
- ECO 201 (3) Principles of Economics (Macro)
- ENG 222 † (3) Expository Writing & Research
- PHY 105 † (5) Introductory College Physics I OR PHY 211 † (5) General Physics I
- Group IV Elective (3) other than HUM

**FOURTH SEMESTER (Winter) - 14-19 credit hours**
- BIO 203 † (4) Zoology
- CIS 100 † (3) Intro to Info Processing Systems
- Group III Electives (6)
- Group IV Elective (3) other than HUM

**OPTIONAL**: PHY 106 † (5) Introductory College Physics II

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 105 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.

3. It is possible for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

† Prerequisite required - see course description

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### Associate in Science Degree

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I**

**General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**FIRST SEMESTER (Fall) - 16 credit hours**
- BIO 101 (4) College Biology
- CHM 111 † (4) General College Chemistry I
- ENG 111 † (3) Freshman English Composition
- MAT 124 † (5) Precalculus OR MAT 126 † (5) Calculus

**SECOND SEMESTER (Winter) - 16 credit hours**
- CHM 112 † (4) General College Chemistry II
- CIS 100 † (3) Intro to Info Processing Systems
- SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking
- Group III Elective (3)
- Group IV Elective (3)

**LEVEL II**

**General Education Requirements: Humanities, Science, Social Sciences**

**THIRD SEMESTER (Fall) - 16 credit hours**
- CPS 175 † (3) Computer Programming I OR CPS 180 † (3) FORTRAN Programming
- ECO 201 (3) Principles of Economics (Macro)
- ENG 222 † (3) Expository Writing & Research
- PHY 105 † (5) Introductory College Physics I OR PHY 211 † (5) General Physics I
- Group IV Elective (3) other than HUM

**FOURTH SEMESTER (Winter) - 14 credit hours**
- PHY 106 † (5) Introductory College Physics II OR PHY 212 † (5) General Physics II
- HUM 200 † (3) Modernity & Culture
- SSC 200 † (3) The Social Sciences & Contemporary America
- Elective (3)

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 105 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.

3. It is possible for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

† Students should check with transfer counselor concerning particular transfer information.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I** General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 22 credit hours**
- BIO 101  (4) College Biology
- CHM 111 † (4) General College Chemistry I
- ENG 111 † (3) Freshman English Composition
- MAT 124 † (5) Precalculus
- SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking
- Group IV Elective (3)

**SECOND SEMESTER (Winter) - 19 credit hours**
- CHM 112 † (4) General College Chemistry II
- CIS 100 † (3) Intro to Info Processing Systems
- ENG 222 † (3) Expository Writing & Research
- HUM 200 † (3) Modernity & Culture
- Group III Elective (3)
- Group IV Elective (3) other than HUM

**LEVEL II** General Education Requirements: Humanities, Science, Social Sciences

**THIRD SEMESTER (Fall) - 17 credit hours**
- BIO 201 † (4) Botany
- CHM 241 † (5) Organic Chemistry I
- ECO 201 (3) Principles of Economics (Macro)
- PHY 105 † (5) Introductory College Physics I

**FOURTH SEMESTER (Winter) - 17 credit hours**
- BIO 203 † (4) Zoology
- CHM 242 † (5) Organic Chemistry II
- PHY 106 † (5) Introductory College Physics II
- SSC 200 † (3) The Social Sciences & Contemporary America

*This degree is designed to either be the first half of a baccalaureate degree OR lead directly to employment as a Biotechnologist. Students may apply for a Co-op option at Dow Chemical Co. Students planning on a Co-op option should also take SSC 106.

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 105 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.

3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

4. Students may also elect to take CHM 201 prior to enrolling at Ferris State University.

† Prerequisite required - see course description
Associate in Science Degree
Chemistry*

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I  General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 15 credit hours
CHM 111 † (4) General College Chemistry I
ENG 111 † (3) Freshman English Composition
MAT 126 † (5) Calculus I
SPE 101 (3) Fund of Communication OR SPE 257 ‡ (3) Public Speaking

SECOND SEMESTER (Winter) - 16 credit hours
CHM 112 † (4) General College Chemistry II
ENG 222 † (3) Expository Writing & Research
SOC XXX † (3) SOC Elective
Group IV Elective (3)
Group IV Elective (3) other than HUM

LEVEL II  General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 19 credit hours
CHM 241 † (5) Organic Chemistry I
CIS 130 † (3) Applications with Microcomputers
ECO 201 (3) Principles of Economics (Macro)
PHY 211 † (5) General Physics I
HUM 200 † (3) Modernity & Culture

FOURTH SEMESTER (Winter) - 18 credit hours
CHM 201 † (5) Quantitative Analysis
CHM 242 † (5) Organic Chemistry II
PHY 212 † (5) General Physics II
POL 201 (3) Introduction to American Government

† Prerequisite required - see course description

* This degree is designed to either be the first half of a baccalaureate degree OR lead directly to employment as a Chemical Technologist. Students planning to complete a baccalaureate degree with a major in chemistry should also select MAT 225 to follow after MAT 126. Students may apply for a Co-op option at Dow Chemical Company. Students planning on a Co-op option should also take SSC 106.

† Prerequisite required - see course description

Associate in Science Degree
Computer Science

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I  General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 17 credit hours
CPS 175 † (3) Computer Programming I OR
CPS 150 † (3) Intro to Java Programming
CIS 100 † (3) Intro to Info Processing Systems
ENG 111 † (3) Freshman English Composition
MAT 126 † (5) Calculus I
Group IV Elective (3)

SECOND SEMESTER (Winter) - 15 credit hours
CPS 176 † (3) Computer Programming II OR
CPS 151 † (3) Advanced Java Programming
MAT 230* † (3) Introduction to Linear Algebra OR
MAT 225 † (4) Calculus II
SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking
Group III Elective (3) Recommend: ECO 202
Group IV Elective (3) other than HUM

LEVEL II  General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 12 credit hours
ENG 222 † (3) Expository Writing & Research
HUM 200 † (3) Modernity & Culture
SCI 200 † (3) Science, Technology & Society
Group III Elective (3) Recommend: ECO 201

FOURTH SEMESTER (Winter) - 18 credit hours
CPS 210 † (3) Introduction to Computer Systems
SSC 200 † (3) The Social Sciences & Contemporary America
Science Elective with Lab (4)
Electives (8) from Groups I, II, III, IV or VI
Students may earn no more than 2 hrs in Group VI.

† Prerequisite required - see course description

* Varies with transfer school - please check with an advisor

† Prerequisite required - see course description
Associate in Science Degree
Environmental Science

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 16 credit hours
CHM 111 † (4) General College Chemistry I
ENG 111 † (3) Freshman English Composition
GEL 101 † (4) Physical Geology
MAT 124 † (5) Precalculus

SECOND SEMESTER (Winter) - 17 credit hours
ENV 210 † (4) Environmental Science
ANT 170 (3) Intro to Cultural Anthropology
CHM 112 † (4) General College Chemistry II
CIS 100 † (3) Intro to Info Processing Systems
SPE 101 (3) Fund of Communication OR
SPE 257 (3) Public Speaking

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 19 credit hours
ENV 220 (3) Environmental Regulations
ENG 222 † (3) Expository Writing and Research
PHY 105 † (5) Introductory College Physics I
SSC 200 † (3) The Social Sciences & Cont Amer
Group IV Elective (3)

FOURTH SEMESTER (Winter) - 16 credit hours
ENV 230 † (5) Environmental Training
BIO 210 † (4) Microbiology
ECO 202 (3) Principles of Economics (Micro)
HUM 200 † (3) Modernity & Culture
Group IV Elective (3) other than HUM
Recommend: PHL 220 Ethical Issues

OPTIONAL*: ENV 290 † (4-6) Environmental Internship

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.
2. Students who need BIO 101, CHM 105, MAT 105 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.
3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

* See your Advisor (highly recommended for students going directly to related field employment).

† Prerequisite required - see course description

Associate in Science Degree
Mathematics

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 15 credit hours
ENG 111 † (3) Freshman English Composition
MAT 126 † (5) Calculus I
SPE 101 (3) Fund of Communication OR
SPE 257 (3) Public Speaking
Natural Science Elective w/lab (4)

SECOND SEMESTER (Winter) - 17 credit hours
CIS 100 † (3) Intro to Info Processing Systems
MAT 225 † (4) Calculus II
PSY 101 (3) Intro to General Psychology
Physical Science Elective (4)
Group IV Elective (3)

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 15 credit hours
ENG 222 † (3) Expository Writing & Research
MAT 230 † (3) Introduction to Linear Algebra
HUM 200 † (3) Modernity & Culture
Group II Elective (3)*
Group III Elective (3)
Group IV Elective (3) other than HUM

FOURTH SEMESTER (Winter) - 16 credit hours
MAT 226 † (4) Calculus III
SSC 200 † (3) The Social Sciences & Contemporary America
Group II Elective (3)*
Group III Elective (3)
Group IV Elective (3) other than HUM

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.
2. Students who need CHM 105, MAT 105, MAT 124 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.
3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

* Recommended that student take CPS 175 Computer Programming I & CPS 176 Computer Programming II—student should check with Advisor concerning particular transfer information.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I** General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 15 credit hours**
- CHM 111 † (4) General College Chemistry I
- ENG 111 † (3) Freshman English Composition
- MAT 126 † (5) Calculus I
- SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking

**SECOND SEMESTER (Winter) - 17 credit hours**
- CHM 112 † (4) General College Chemistry II
- ENG 222 † (3) Expository Writing & Research
- MAT 225 † (4) Calculus II
- POL 201 (3) Intro to American Government* OR Group III Elective (3)

**LEVEL II** General Education Requirements: Humanities, Science, Social Sciences

**THIRD SEMESTER (Fall) - 17 credit hours**
- CPS 175 † (3) Computer Programming I *** OR CPS 180 † (3) FORTRAN Programming ***
- ECO 201 (3) Principles of Economics (Macro)
- PHY 211 † (5) General Physics I
- HUM 200 † (3) Modernity & Culture

**FOURTH SEMESTER (Winter) - 18 credit hours**
- MAT 226 † (4) Calculus III
- PHY 212 † (5) General Physics II
- SSC 200 † (3) The Social Sciences & Contemporary America

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 105, MAT 124 and/or ENG 101 are encouraged to begin with these classes prior to beginning the program.

3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

* POL 201 is required at some universities. Please check with your counselor.

**Pre-Optometry - Ferris State University**

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I** General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 19 credit hours**
- BIO 101 (4) College Biology
- CHM 111 † (4) General College Chemistry I
- ENG 111 † (3) Freshman English Composition
- MAT 126 † (5) Calculus I
- SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking

**SECOND SEMESTER (Winter) - 17 credit hours**
- BIO 203 † (4) Zoology
- CHM 112 † (4) General College Chemistry II
- ENG 222 † (3) Expository Writing & Research
- PSY 101 (3) Intro to General Psychology

**LEVEL II** General Education Requirements: Humanities, Science, Social Sciences

**THIRD SEMESTER (Fall) - 19 credit hours**
- CHM 241 † (5) Organic Chemistry I
- CIS 100 † (3) Intro to Info Processing Systems
- PHY 105 † (5) Introductory College Physics I
- HUM 200 † (3) Modernity & Culture

**FOURTH SEMESTER (Winter) - 19 credit hours**
- CHM 242 † (5) Organic Chemistry II
- MAT 212 † (3) Intro to Probability & Statistics
- PHY 106 † (5) Introductory College Physics II
- SSC 200 † (3) The Social Sciences & Contemporary America

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 105, MAT 124 and/or ENG 101 are encouraged to begin with these classes prior to beginning the program.

3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 16 credit hours**
- BIO 101 (4) College Biology
- CHM 111 † (4) General College Chemistry I
- ENG 111 † (3) English Composition
- MAT 126 † (5) Calculus I

**SECOND SEMESTER (Winter) - 17 credit hours**
- BIO 203 † (4) Zoology
- CHM 112 † (4) General College Chemistry II
- CIS 100 † (3) Intro to Info Processing Systems
- SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking
- Group IV Elective (3)

**LEVEL II General Education Requirements: Humanities, Science, Social Sciences**

**THIRD SEMESTER (Fall) - 18 credit hours**
- BIO 210 † (4) Microbiology
- CHM 241 † (5) Organic Chemistry I
- ECO 201 (3) Principles of Economics (Macro)
- ENG 222 † (3) Expository Writing & Research
- Group IV Elective (3) other than HUM

**FOURTH SEMESTER (Winter) - 17 credit hours**
- CHM 242 † (5) Organic Chemistry II
- MAT 212 † (3) Intro to Probability & Statistics
- PSY 101 (3) Intro to General Psychology OR SOC 101 (3) Principles of Sociology
- HUM 200 † (3) Modernity & Culture
- SSC 200 † (3) The Social Sciences & Contemporary America

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 124 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.

3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

† Prerequisite required - see course description

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You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 16 credit hours**
- CHM 111 † (4) General College Chemistry I
- ENG 111 † (3) Freshman English Composition
- MAT 124 † (5) Precalculus
- SPE 101 (3) Fund of Communication OR SPE 257 (3) Public Speaking

**SECOND SEMESTER (Winter) - 17 credit hours**
- BIO 101 (4) College Biology
- CHM 112 † (4) General College Chemistry II
- PSY 101 (3) Intro to General Psychology
- SOC 101 (3) Principles of Sociology
- Group IV Elective (3)

**LEVEL II General Education Requirements: Humanities, Science, Social Sciences**

**THIRD SEMESTER (Fall) - 14 credit hours**
- CIS 100 † (3) Intro Info Processing Systems OR CPS 175 † (3) Computer Programming I *
- ENG 222 † (3) Expository Writing & Research
- PHY 101 (3) Introductory College Physics I
- PSY 212 † (3) Developmental Psychology
- HUM 200 † (3) Modernity & Culture
- POL 201 (3) Intro to American Government
- Elective (3) Recommend: BIO 141 & BIO 142 **

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 124 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.

3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

* CIS 100 competency must be met in order to earn an associate degree. CIS 100 or CPS 175 requirements vary depending on the transfer college. Please check with a counselor.

** Students are advised to check with the transfer college.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 19 credit hours**
- BIO 101 (4) College Biology
- CHM 111 † (4) General College Chemistry I
- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition
- MAT 124 † (5) Precalculus

**SECOND SEMESTER (Winter) - 20 credit hours**
- BIO 203 † (4) Zoology
- CHM 112 † (4) General College Chemistry II
- SPE 101 † (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking
- Group III Elective (3)
- Group IV Elective (3)
- Group IV Elective (3) other than HUM

**LEVEL II General Education Requirements:**
- Humanities, Science, Social Sciences

**THIRD SEMESTER (Fall) - 17 credit hours**
- BIO 201 † (4) Botany
- CHM 241 † (5) Organic Chemistry I
- ENG 222 † (3) Expository Writing & Research
- MAT 126 † (5) Calculus I

**FOURTH SEMESTER (Winter) - 18 credit hours**
- BIO 210 † (4) Microbiology
- CHM 242 † (5) Organic Chemistry II
- HUM 200 † (3) Modernity & Culture
- SSC 200 † (3) The Social Sciences & Contemporary America
- Group III Elective (3) other than SSC

1. It is strongly recommended that students take math and science classes in the specific semester listed. Many of these courses are only offered fall or winter. Other courses may be adjusted.

2. Students who need CHM 105, MAT 105 and/or ENG 101 are encouraged to begin with these classes previous to beginning the program.

3. It is POSSIBLE for students to complete this program in a total of 2 years, however, due to the heavy science load, a student may wish to consider either an extra semester or a summer session.

† Prerequisite required - see course description
The Business Division provides instructional programs which fulfill the following student and community needs:

- Entry-level job skills and competencies for associate degree graduates in Accounting, Computer Information Systems, Hospitality Management, Legal Secretary, Marketing and Management, Medical Secretary, Medical Transcriptionist, Office Information Systems, and Small Business Management.

- Competencies necessary to advance from entry-level positions to more demanding and rewarding job assignments.

- An understanding that learning is a lifelong pursuit and continued retraining is a desired and necessary endeavor.

- A foundation for further study toward the baccalaureate degree through the Associate in Business Administration program.

- Computer literacy for all students.

- Personal financial skills for all students.

Associate in Business Administration ................................................................. 67

Associate in Business:

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You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements:
- Humanities, Science, Social Sciences

Communication Skills (Group I) - 9 credit hours
- ENG 111† (3) Freshman English Composition
- ENG 222† (3) Expository Writing & Research
- SPE 101 (3) Fundamentals of Communication
- SPE 257 (3) Public Speaking

Science and Mathematics (Group II) - 12 credit hours
- SCI 200† (3) Science, Technology & Society
- MAT 212† (3) Intro to Probability & Statistics
- MAT 116* (3) Business Mathematics I AND MAT 216† (3) Business Mathematics II
  OR
- MAT 126*† (5) Calculus I

Social Sciences (Group III) - 12 credit hours
- ECO 201 (3) Principles of Economics (Macro)

Associate in Business Administration Degree

LEVEL II General Education Requirements:
- Humanities, Science, Social Sciences

Humanities and Fine Arts (Group IV) - 9 credit hours
- HUM 200† (3) Modernity & Culture
  Plus 6 additional credit hours, which must be taken from at least two different disciplines.

Applied Arts and Sciences (Group V) - 17 credit hours
- CIS 100† (3) Intro to Info Processing Systems
  Accounting, Business, Computer Information Systems, and Office Information Systems requirements are to be determined with your counselor depending upon the college or university into which you plan to transfer.

Electives - 3 credit hours
- Electives from Groups I, II, III, IV, V (ACC, BUS, CIS, or OIS) and VI.
  Students may earn no more than 2 credit hrs in Group VI.

† Prerequisite required - see course description

Associate in Business Degree

Accounting

LEVEL II General Education Requirements:
- Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 18 credit hours
- ACC 205† (3) Payroll Accounting
- ACC 251† (3) Tax Accounting I
- ACC 261† (3) Computerized Accounting
- CIS 260† (3) Systems Analysis
- SCI 200† (3) Science, Technology & Society
- SSC 200† (3) The Social Sciences & Contemporary America

FOURTH SEMESTER (Winter) - 15 credit hours
- ACC 231† (3) Principles of Cost Accounting
- ACC 252† (3) Tax Accounting II
- ACC 280† (3) Co-op (Accounting)
- OIS 264† (3) Business Communications II
- HUM 200† (3) Modernity & Culture

† Prerequisite required - see course description
Associate in Business Degree
Banking & Finance

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

Communication Skills (Group I) - 6 credit hours
- ENG 111 (3) Freshman English Composition
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

Science and Mathematics (Group II) - 6 credit hours
- MAT 101 (3) Basic Mathematics
- SCI 200† (3) Science, Technology & Society

Social Sciences (Group III) - 6 credit hours
- PSY 101 (3) Introduction to General Psychology
- SSC 200† (3) The Social Sciences & Contemporary America

† Prerequisite required - see course description

Associate in Business Degree
Computer Information Systems

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 15 credit hours
- BUS 151 (3) Introduction to Business Issues
- CIS 100† (3) Intro to Info Processing Systems
- CIS 110† (3) Computer Progr I (Visual Basic)
- MAT 116† (3) Business Mathematics I
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

SECOND SEMESTER (Winter) - 16 credit hours
- ACC 201† (4) Financial Accounting
- CIS 111† (3) Computer Progr II (Visual Basic)
- CIS 130† (3) Applications with Microcomputers
- CIS 210 (3) Desktop Publishing
- ENG 111† (3) Freshman English Composition

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 17 credit hours
- ACC 211† (4) Managerial Accounting
- CIS 245† (4) Computer Setup & Repair
- CIS 260† (3) Systems Analysis
- CIS 270† (3) Networking Essentials
- HUM 200† (3) Modernity & Culture

FOURTH SEMESTER (Winter) - 18 credit hours
- BUS 153 (3) Business Law
- CIS 255† (3) Computer Oper.Systems (WinXP) OR CIS 256† (3) MS Windows 2000 Professional
- CIS 280† (3) Co-op (Computer Info Systems)
- OIS 264† (3) Business Communications II
- SCI 200† (3) Science, Technology & Society
- SSC 200† (3) The Social Sci & Contemp America

Additional Courses Available for Windows NT Microsoft Certified Systems Engineer (MCSE) *
- CIS 271† (3) MS Windows 2000 Server
- CIS 272† (3) Active Directory Services
- CIS 273† (3) Implementing Windows 2000 Network
- CIS 274† (3) MS Internet Information Server

† Prerequisite required - see course description
Associate in Business Degree
Hospitality Management

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 15 credit hours
BUS 122 (3) Management Theory & Practice
BUS 151 (3) Introduction to Business Issues
CIS 100 † (3) Intro to Info Processing Systems
ENG 111 † (3) Freshman English Composition
MAT 116 † (3) Business Mathematics I

SECOND SEMESTER (Winter) - 19 credit hours
ACC 201 † (4) Financial Accounting
BUS 102 (3) Intro to Hospitality Management
BUS 162 (3) Principles of Marketing
BUS 153 (3) Business Law
CIS 130 † (3) Applications with Microcomputers
SPE 101 (3) Fundamentals of Communication OR
SPE 257 (3) Public Speaking

ASSOCIATE IN BUSINESS DEGREE
Legal Secretary / Office Professional

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisite to the Program: OIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent OR concurrent enrollment

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 16 credit hours
OIS 120 (3) Office Mathematics
OIS 130 † (4) Intro to Office Info Systems **
OIS 164 † (3) Business Communications I
ENG 111 † (3) Freshman English Composition
SPE 101 (3) Fundamentals of Communication OR
SPE 257 (3) Public Speaking

SECOND SEMESTER (Winter) - 15 credit hours
OIS 125 † (3) Applied Office Accounting
OIS 136 † (3) Terminology & Proofreading
OIS 142 † (3) Inter Word Processing/Keyboarding
OIS 200 † (3) Adv Word Processing Applications
HUM 200 † (3) Modernity & Culture

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 16 credit hours
ACC 211 † (4) Managerial Accounting
BUS 235 (3) Front Office Operations
BUS 250 (3) Entrepreneurial Management
ECO 201 (3) Principles of Economics (Macro) OR
ECO 202* (3) Principles of Economics (Micro)
HUM 200 † (3) Modernity & Culture

FOURTH SEMESTER (Winter) - 15 credit hours
BUS 255 (3) Entrepreneurial Finance
BUS 291 † (3) Business Internship
OIS 264 † (3) Business Communications II
SCI 200 † (3) Science, Technology & Society
SSC 200 † (3) The Social Sciences & Contemporary America

* Note that ECO 202 is a Winter course offering.
† Prerequisite required - see course description

** CIS 100 equivalent on OIS, Legal Secretary, Medical Secretary, and Medical Assistant degrees only
† Prerequisite required - see course description
Associate in Business Degree
Medical Secretary/Office Professional

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisite to the Program: OIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent OR concurrent enrollment

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 16 credit hours
OIS 120 (3) Office Mathematics
OIS 130 † (4) Intro to Office Info Systems*
OIS 164 † (3) Business Communications I
ENG 111 † (3) Freshman English Composition
SPE 101 † (3) Fund of Communication OR
SPE 257 (3) Public Speaking

SECOND SEMESTER (Winter) - 17 credit hours
ALH 100 (2) Medical Terminology
OIS 125 † (3) Applied Office Accounting
OIS 136 † (3) Terminology and Proofreading
OIS 142 † (3) Inter Word Proc/Keyboarding
OIS 200 † (3) Adv Word Processing Applications
HUM 200 † (3) Modernity & Culture

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 15 credit hours
ALH 112 † (3) Insurance Billing
OIS 230 † (3) Transcription I
OIS 240 † (3) Adv Word Proc/Keyboarding
OIS 250 † (3) Records Management
SCI 200 † (3) Science, Technology & Society

FOURTH SEMESTER (Winter) - 16 credit hours
OIS 236 † (3) Medical Transcription I
OIS 254 † (3) Office Procedures
OIS 260 † (4) Co-op (Medical)
OIS 264 † (3) Business Communications II
SSC 200 † (3) The Social Sciences & Contemporary America

* CIS 100 equivalent on OIS, Legal Secretary, Medical Secretary, and Medical Assistant degrees only

† Prerequisite required - see course description

Associate in Business Degree
Medical Transcriptionist

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisite to the Program: OIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent OR concurrent enrollment

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 18 credit hours
ALH 100 (2) Medical Terminology
BIO 101 (4) College Biology
CIS 100 † (3) Intro to Info Processing Systems
OIS 120 † (3) Office Mathematics
OIS 126 † (3) Intro to Medical Transcription
OIS 164 † (3) Business Communications I

SECOND SEMESTER (Winter) - 19 credit hours
BIO 131 † (4) Basic Anatomy & Physiology
ENG 111 † (3) Freshman English Composition
OIS 136 † (3) Terminology and Proofreading
OIS 142 † (3) Inter Word Proc/Keyboarding
OIS 236 † (3) Medical Transcription I
SPE 101 † (3) Fund of Communication OR
SPE 257 † (3) Public Speaking

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 12 credit hours
OIS 240 † (3) Adv Word Proc/Keyboarding
OIS 246 † (3) Medical Transcription II
HUM 200 † (3) Modernity & Culture
SCI 200 † (3) Science, Technology & Society

FOURTH SEMESTER (Winter) - 15 credit hours
ALH 220 (2) Medical Law & Ethics
OIS 254 † (3) Office Procedures
OIS 256 † (3) Medical Transcription III
OIS 260 † (4) Co-op (Medical Transcription)
SSC 200 † (3) The Social Sciences & Contemporary America

† Prerequisite required - see course description
Associate in Business Degree
Office Information Systems

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisite to the Program: OIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent OR concurrent enrollment

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 16 credit hours
OIS 120 (3) Office Mathematics
OIS 130 (4) Intro to Office Info Systems*
OIS 164 (3) Business Communications I
ENG 111 (3) Freshman English Composition
SPE 101 (3) Fund of Communication OR
SPE 257 (3) Public Speaking

SECOND SEMESTER (Winter) - 16 credit hours
BUS 151 (3) Introduction to Business Issues
BUS 153 (3) Business Law
OIS 130 (3) Applications with Microcomputers
OIS 136 (3) Terminology and Proofreading
OIS 142 (3) Inter Word Proc/Keyboarding
OIS 200 (3) Adv Word Processing Applications

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 18 credit hours
OIS 230 (3) Transcription I
OIS 240 (3) Adv Word Proc/Keyboarding
OIS 250 (3) Records Management
OIS 264 (3) Business Communications II
HUM 200 (3) Modernity & Culture
SCI 200 (3) Science, Technology & Society

FOURTH SEMESTER (Winter) - 17 credit hours
BUS 151 (3) Introduction to Business Issues
OIS 142 (3) Inter Word Processing/Keyboarding
ENG 111 (3) Freshman English Composition
SPE 101 (3) Fund of Communication OR
SPE 257 (3) Public Speaking

* CIS 100 equivalent on OIS, Legal Secretary, Medical Secretary, and Medical Assistant degrees only

† Prerequisite required - see course description

Certificate of Achievement
Office Information Systems

FIRST SEMESTER (Fall) - 16 credit hours
OIS 120 (3) Office Mathematics
OIS 130 (4) Intro to Office Info Systems
OIS 140 (3) Beg Word Processing/Keyboarding
OIS 164 (3) Business Communications I
OIS 250 (3) Records Management

SECOND SEMESTER (Winter) - 16 credit hours
ACC 201 (4) Financial Accounting
BUS 151 (3) Introduction to Business Issues
OIS 142 (3) Inter Word Proc/Keyboarding
ENG 111 (3) Freshman English Composition
SPE 101 (3) Fundamentals of Communication OR
SPE 257 (3) Public Speaking

† Prerequisite required - see course description
### Associate in Business Degree
#### Small Business Management

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 15 credit hours**
- BUS 250 (3) Entrepreneurial Management
- CIS 100 † (3) Intro to Info Processing Systems
- ECO 201 (3) Principles of Economics (Macro) OR ECO 202 (3) Principles of Economics (Micro)
- ENG 111 † (3) Freshman English Composition
- MAT 116 † (3) Business Mathematics I

**SECOND SEMESTER (Winter) - 16 credit hours**
- ACC 201 † (4) Financial Accounting
- BUS 153 (3) Business Law
- BUS 162 (3) Principles of Marketing
- ENG 111 † (3) Freshman English Composition
- MAT 116 † (3) Business Mathematics I

*Note that ECO 202 is a Winter course offering.

| † Prerequisite required - see course description |

### Associate in Business Degree
#### Management & Marketing

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 15 credit hours**
- BUS 122 (3) Management Theory & Practice
- BUS 151 (3) Introduction to Business Issues
- CIS 100 † (3) Intro to Info Processing Systems
- MAT 116 † (3) Business Mathematics I
- OIS 140 (3) Beg Word Processing/Keyboarding

**SECOND SEMESTER (Winter) - 16 credit hours**
- ACC 201 † (4) Financial Accounting
- BUS 151 (3) Introduction to Business Issues
- BUS 162 (3) Principles of Marketing
- ENG 111 † (3) Freshman English Composition
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

| † Prerequisite required - see course description |

### LEVEL II General Education Requirements:
**Humanities, Science, Social Sciences**

**THIRD SEMESTER (Fall) - 16 credit hours**
- ACC 211 † (4) Managerial Accounting
- ACC 251 † (3) Tax Accounting I
- BUS 231 (3) Principles of Accounting
- HUM 200 † (3) Modernity & Culture
- SCI 200 † (3) Science Technology & Society

**FOURTH SEMESTER (Winter) - 18 credit hours**
- BUS 153 (3) Business Law
- BUS 255 (3) Entrepreneurial Finance
- BUS 291 † (3) Business Internship
- ECO 201 (3) Principles of Economics (Macro) OR ECO 202* (3) Principles of Economics (Micro)
- HUM 200 † (3) Modernity & Culture
- SCI 200 † (3) Science Technology & Society

*Note that ECO 202 is a Winter course offering.

| † Prerequisite required - see course description |

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The purpose of the Health Education Division is twofold. First, students in the Emergency Medical Services, Medical Assistant, Nursing and Radiography programs are prepared for entry-level positions in health care, and for licensure, certifications, and/or registration. Secondly, students not enrolled in the Health Education programs are provided with courses which introduce them to various aspects of health care delivery.

The EMS/Paramedic program provides instruction in the roles and responsibilities of Paramedics; integrating pathophysiological principles in the assessment, management, and development of field impression and treatment plans for diverse patients; administration of medications; and effective communication with patients. Laboratory is conducted and extensive clinical experience is obtained in ambulance and medical center settings. Successful completion of this program qualifies students for the Michigan State Paramedic Examination.

Upon successful completion of prerequisite courses, Radiography program students undergo a two year sequence of classroom, laboratory, and clinical education classes. Graduates receive an Associate in Applied Science: Radiography degree and are eligible for the American Registry of Radiologic Technologists certification examination.

Medical Assistant students complete all courses (5 semesters) in their curriculum. They are eligible to test for C.M.A. Certification through the American Association of Medical Assistants.

Practical Nursing students complete all courses in the Level I program (three semesters). They receive a certificate of achievement and are eligible for the NCLEX-PN State Board Examination for licensure as an LPN.

ADN Registered Nursing students complete all courses in both the Level I and Level II Programs (six semesters) and receive an Associate Degree in Nursing. They are eligible for the NCLEX-RN State Board Examination for licensure as an RN.

The nursing curriculum is a laddered program allowing multiple entry and exit points.

Access MMCC's web page www.midmich.edu for additional information about these programs.
Associate in Applied Science Degree
Emergency Medical Services

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 16 credit hours
- ALH 100 (2) Medical Terminology
- BIO 141 † (4) Anatomy & Physiology I
- BIO 110 † (1) Concepts in Microbiology
- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition
- MAT 104 † (3) Basic Algebra

SECOND SEMESTER (Winter) - 16 credit hours
- BIO 142 † (4) Anatomy & Physiology II
- EMT 100 † (9) Basic Emergency Medical Technician
  OR EMT License
- SPE 101 (3) Fundamentals of Communication
  OR SPE 257 (3) Public Speaking

LEVEL II General Education Requirements:
Humanities, Science, Social Sciences

THIRD SEMESTER (Spring) - 6 credit hours
- HUM 200 † (3) Modernity & Culture
- SCI 200 † (3) Science, Technology & Society

FOURTH SEMESTER (Summer) - 3 credit hours
- SSC 200 † (3) The Social Sciences & Contemporary America

FIFTH SEMESTER (Fall) - 15 credit hours
- EMS 200 † (15) Paramedic I

SIXTH SEMESTER (Winter) - 14 credit hours
- EMS 220 † (14) Paramedic II

NOTE: Paramedic Instruction will be a total of 975 hours. Instruction will be provided by Mobile Medical Response, of Saginaw. Lecture, lab, and clinical hours have been formatted to correspond with MMR's curriculum.

NOTE: Students may begin Paramedic training prior to passing the EMT State Licensing Examination. However, they must pass the EMT State Examination prior to taking the Paramedic State Examination. Students may take the EMT State Examination up to three times. If they still have not passed this examination, they must obtain remedial instruction before becoming eligible to retake the exam.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**Prerequisite to the Program:** OIS 140 (3) Beginning Word Processing/Keyboarding **OR** equivalent **OR** concurrent enrollment

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**FIRST SEMESTER (Fall) - 15 credit hours**
- ALH 100 (2) Medical Terminology
- OIS 130 † (4) Intro to Office Info Systems *
- OIS 164 † (3) Business Communincations I
- ENG 111 † (3) Freshman English Composition
- MAT 101 (3) Basic Mathematics

**SECOND SEMESTER (Winter) - 16 credit hours**
- ALH 125 † (3) Intro to the Health Care Environment
- BIO 131 † (4) Basic Anatomy and Physiology
- OIS 125 † (3) Applied Office Accounting
- OIS 142 † (3) Inter Word Processing/Keyboarding
- SPE 101 (3) Fundamentals of Communication **OR**
- SPE 257 (3) Public Speaking

**LEVEL II General Education Requirements:** Humanities, Science, Social Sciences

**THIRD SEMESTER (Fall) - 16 credit hours**
- ALH 112 † (3) Insurance Billing
- ALH 210 † (4) Clinical Procedures/Pharmacology
- OIS 230 † (3) Transcription I
- OIS 250 † (3) Records Management
- SCI 200 † (3) Science, Technology & Society

**FOURTH SEMESTER (Winter) - 16 credit hours**
- ALH 220 (2) Medical Law and Ethics
- ALH 230 † (3) Laboratory Procedures for the Medical Office
- OIS 236 † (3) Medical Transcription I
- HUM 200 † (3) Modernity & Culture
- SSC 200 † (3) The Social Sciences & Contemporary America

**FIFTH SEMESTER (Spring) - 4 credit hours**
- ALH 250 † (4) Medical Assistant Office Externship

* CIS 100 equivalent on OIS, Legal Secretary, Medical Secretary, and Medical Assistant degrees only

**NOTE:** All courses in a semester must be passed with a grade of "C" or better to progress to the next semester. OIS courses must be a grade of "C-" or better.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisites to the Program - 19 credit hours

ALH 100 (2) Medical Terminology
BIO 141 † (4) Anatomy & Physiology I
CHM 105 † (4) Introductory Chemistry
CIS 100 † (3) Intro to Info Processing Systems
ENG 111 † (3) Freshman English Composition
MAT 104 † (3) Basic Algebra

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 13 credit hours

BIO 142 † (4) Anatomy & Physiology II
SPE 101 (3) Fundamentals of Communication OR
SPE 257 (3) Public Speaking
RAD 100 † (3) Introduction to Radiologic Technology
RAD 110 † (3) Radiation Physics

SECOND SEMESTER (Winter) - 16 credit hours

PSY 101 (3) Introduction to General Psychology
HUM 200 † (3) Modernity & Culture
SSC 200 † (3) The Social Sciences & Contemporary America
RAD 115 † (3) Principles of Radiographic Exposure
RAD 130 † (4) Radiographic Positioning I

SPRING/SUMMER SESSION - 3 credit hours

RAD 175 † (3) Radiographic Positioning II

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

THIRD SEMESTER (Fall) - 13 credit hours

BIO 110 † (1) Concepts in Microbiology
RAD 200 † (8) Clinical Education I
RAD 201 † (2) Clinical Issues in Radiography I
RAD 215 † (2) Radiologic Techniques I

FOURTH SEMESTER (Winter) - 12 credit hours

RAD 217 † (2) Radiologic Techniques II
RAD 220 † (9) Clinical Education II
RAD 221 † (1) Clinical Issues in Radiography II

SPRING/SUMMER SESSION - 7 credit hours

RAD 225 † (5) Clinical Education III
RAD 226 † (1) Clinical Issues in Radiography III
RAD 230 † (1) Radiographic Quality Assurance

NOTE: All courses in a semester must be passed with a grade of "C" or better, with the exception of BIO 141 and BIO 142. Students must earn a grade of "B-" or better in these courses. BIO 142 may be taken during the first semester, however, it is recommended that students take this course prior to entering the program. Science courses must be completed within five years of entry into the program.

† Prerequisite required - see course description
LADDERED NURSING DEGREE

LEVEL I: Certificate of Achievement - Practical Nursing

LEVEL II: Associate in Nursing Degree

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisites to the Program: 22 credit hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH 100</td>
<td>2</td>
</tr>
<tr>
<td>CIS 100 †</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 †</td>
<td>3</td>
</tr>
<tr>
<td>MAT 104 †</td>
<td>3</td>
</tr>
<tr>
<td>BIO 141 †</td>
<td>4</td>
</tr>
<tr>
<td>BIO 142 †</td>
<td>4</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3</td>
</tr>
<tr>
<td>SPE 257</td>
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</tr>
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</table>

Prerequisites to the LEVEL II ADN Program: 8 cr hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 210 †</td>
<td>4</td>
</tr>
<tr>
<td>CHM 106 †</td>
<td>4</td>
</tr>
</tbody>
</table>

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

NURSING LEVEL I: FIRST SEMESTER (Fall) - 14 cr hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 121 †</td>
<td>6</td>
</tr>
<tr>
<td>NUR 124 †</td>
<td>5</td>
</tr>
<tr>
<td>NUR 150 †</td>
<td>3</td>
</tr>
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</table>

LEVEL I: SECOND SEMESTER (Winter) - 14 cr hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NUR 125 †</td>
<td>6</td>
</tr>
<tr>
<td>NUR 127 †</td>
<td>3</td>
</tr>
<tr>
<td>NUR 128 †</td>
<td>5</td>
</tr>
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</table>

LEVEL I: THIRD SEMESTER (Spring) - 3 credit hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NUR 130 †</td>
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LEVEL II General Education Requirements: Humanities, Science, Social Sciences

NURSING LEVEL II: FOURTH SEMESTER (Fall) - 13 cr hrs

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>NUR 221* †</td>
<td>2.5</td>
</tr>
<tr>
<td>NUR 222* †</td>
<td>2.5</td>
</tr>
<tr>
<td>NUR 223* †</td>
<td>2.5</td>
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<tr>
<td>NUR 224* †</td>
<td>2.5</td>
</tr>
<tr>
<td>NUR 225* †</td>
<td>5</td>
</tr>
<tr>
<td>NUR 226* †</td>
<td>5</td>
</tr>
<tr>
<td>SSC 200 †</td>
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</tr>
</tbody>
</table>

* Elect: NUR 221, 222, 223, and 224 OR NUR 225 and 226. One group will be taken Fourth Semester and the other taken Fifth Semester.

LEVEL II: FIFTH SEMESTER (Winter) - 15 credit hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 221* †</td>
<td>2.5</td>
</tr>
<tr>
<td>NUR 222* †</td>
<td>2.5</td>
</tr>
<tr>
<td>NUR 223* †</td>
<td>2.5</td>
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<tr>
<td>NUR 224* †</td>
<td>2.5</td>
</tr>
<tr>
<td>NUR 225* †</td>
<td>5</td>
</tr>
<tr>
<td>NUR 226* †</td>
<td>5</td>
</tr>
<tr>
<td>NUR 227 †</td>
<td>2</td>
</tr>
<tr>
<td>HUM 200 †</td>
<td>3</td>
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</tbody>
</table>

* Elect: NUR 221, 222, 223, and 224 OR NUR 225 and 226. One group will be taken Fourth Semester and the other taken Fifth Semester.

LEVEL II: SIXTH SEMESTER (Spring) - 3 cr hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 228 †</td>
<td>3</td>
</tr>
</tbody>
</table>

NOTE: It is POSSIBLE for students to complete this program in a total of 2 years after the prerequisites are completed; however, due to the intensity of the NUR courses, it is suggested that students complete the additional required academic courses while awaiting admission to the program.

NOTE: All courses in a semester must be passed with a grade of “C” or better to progress to the next semester. BIO 141 & 142 must be a grade of “B-” or better to enter the program.

† Prerequisite required - see course description
Associate in Nursing Degree (Part-Time)

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisites to the LEVEL II ADN Program: 28 cr hrs

- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition
- MAT 104 † (3) Basic Algebra
- BIO 141 † (4) Anatomy & Physiology I
- BIO 142 † (4) Anatomy & Physiology II
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking
- BIO 210 † (4) Microbiology
- CHM 106 † (4) Organic & Biochem for Allied Health

LPN’s with one year current work experience as a LPN may apply to enter this Part-time program. Credit for all LEVEL I Nursing courses are granted by virtue of an LPN License. For further information contact the Dean of Nursing.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements: Humanities, Science, Social Sciences

TRANSITION: FIRST SEMESTER (Spring) - 3 cr hours

- NUR 133 † (3) Transition to Level II of the Program

LEVEL II: SECOND SEMESTER (Summer) - 3 cr hours

- SSC 200 † (3) The Social Sciences & Contemporary America

LEVEL II: THIRD SEMESTER (Fall) - 5 credit hours

- NUR 221 † (2.5) Family-Centered
- NUR 222 † (2.5) Family-Centered: Clinical IV

LEVEL II: FOURTH SEMESTER (Winter) - 5 cr hours

- NUR 223 † (2.5) Mental Health
- NUR 224 † (2.5) Mental Health: Clinical IV

LEVEL II: FIFTH SEMESTER (Spring or Summer) - 3 cr

- HUM 200 † (3) Modernity & Culture

LEVEL II: SIXTH SEMESTER (Fall) - 10 cr hours

- NUR 225 † (5) Care of Adult II
- NUR 226 † (5) Nursing Clinical V

LEVEL II: SEVENTH SEMESTER (Winter) - 2 cr hours

- NUR 227 † (2) Leadership
- NUR 226 Continued from Fall Semester

LEVEL II: EIGHTH SEMESTER (Spring) - 3 cr

- NUR 228 † (3) Preceptorship: Clinical VI

NOTE: It is possible for students to complete this program in a total of 2 years after the prerequisites are completed; however, due to the intensity of the NUR courses, it is suggested that students complete the additional required academic courses while awaiting admission to the program.

NOTE: All courses in a semester must be passed with a grade of "C" or better to progress to the next semester. BIO 141 & 142 must be passed with a grade of "B-" or better to enter the program.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

Prerequisites to the LEVEL II ADN Program: 28 cr hrs

- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition
- MAT 104 † (3) Basic Algebra
- BIO 141 † (4) Anatomy & Physiology I
- BIO 142 † (4) Anatomy & Physiology II
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking
- BIO 210 † (4) Microbiology
- CHM 106 † (4) Organic & Biochem for Allied Health

The Step-Up program provides entrance into the Associate in Nursing Degree program at LEVEL II for qualified Licensed Practical Nurses. Non-MMCC LPN’s and MMCC LPN’s who graduated more than 2 years ago may enter this Step-Up program. Credit for all LEVEL I Nursing courses are granted by virtue of an LPN License. For further information contact the Dean of Nursing.

LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

LEVEL II General Education Requirements:
Humanities, Science, Social Sciences

TRANSITION: THIRD SEMESTER (Summer) - 3 cr hrs
NUR 133 † (3) Transition to Level II of the Program

LEVEL II: FOURTH SEMESTER (Fall) - 13 credit hours
NUR 221* † (2.5) Family-Centered
NUR 222* † (2.5) Family-Centered: Clinical IV
NUR 223* † (2.5) Mental Health
NUR 224* † (2.5) Mental Health: Clinical IV
NUR 225* † (5) Care of Adult II
NUR 226* † (5) Nursing Clinical/V
NUR 227 † (2) Leadership
HUM 200 † (3) Modernity & Culture

* Elect: NUR 221, 222, 223, and 224 OR NUR 225 and 226. One group will be taken Fourth Semester and the other taken Fifth Semester.

LEVEL II: FIFTH SEMESTER (Winter) - 15 credit hours
NUR 221* † (2.5) Family-Centered
NUR 222* † (2.5) Family-Centered: Clinical IV
NUR 223* † (2.5) Mental Health
NUR 224* † (2.5) Mental Health: Clinical IV
NUR 225* † (5) Care of Adult II
NUR 226* † (5) Nursing Clinical/V
NUR 227 † (2) Leadership
HUM 200 † (3) Modernity & Culture

NOTE: It is POSSIBLE for students to complete this program in a total of 2 years after the prerequisites are completed; however, due to the intensity of the NUR courses, it is suggested that students complete the additional required academic courses while awaiting admission to the program.

NOTE: All courses in a semester must be passed with a grade of "C" or better to progress to the next semester. BIO 141 & 142 must be passed with a grade of "B-" or better to enter the program.

† Prerequisite required - see course description
The Technical Division is comprised of programs of study covering a wide range of occupational job titles. Well-trained and experienced faculty, modern facilities, state-of-the-art equipment and programs, and courses that keep abreast of changing educational needs are several characteristics that support the Technical Division’s central theme, “Learn By Doing.”

Many varied activities demonstrate the commitment of faculty to sustain the business, industry, and college partnership. An active occupational advisory committee composed of personnel from business and industry is used with each technical program to ensure appropriate instruction is provided for entry level employment or transfer to a four-year college or university.

Partnerships between the community college and secondary schools have increased in recent years to include sharing of facilities and equipment, the provision of advanced placement credits and formally articulated occupational programs. The goal of providing students with a continuous educational development plan for successful entry level employment has increased contact and information exchange between secondary and community college faculty and administrators.

The Technical Division attempts to integrate the concepts of education for work and education for life. For the student, the division offers first-rate technical education and career-related programs to prepare students to meet their educational goals leading toward a challenging and financially rewarding career.

**Associate in Applied Science Degree:**
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You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**FIRST SEMESTER (Fall) - 17.5 credit hours**
AMS 104 (2) Basic Automotive Electricity  
AMS 110 (4.5) Engine Fundamentals & Overhaul  
AMS 125 (5) Engine Performance I  
CIS 100 † (3) Intro to Info Processing Systems  
MAT 101 (3) Basic Mathematics

**SECOND SEMESTER (Winter) - 18 credit hours**
AMS 116 † (3) Electrical Systems I: Electrical Accessories  
AMS 124 (4) Automotive Heating & Air Conditioning  
AMS 126 † (5) Engine Performance II  
ENG 111 † (3) Freshman English Composition  
SPE 101 (3) Fundamentals of Communication OR  
SPE 257 (3) Public Speaking

**THIRD SEMESTER (Fall) - 15 credit hours**
AMS 205 (4) Steering & Suspension Systems  
AMS 206 (4) Brakes  
AMS 223 † (4) Electrical Systems II: Engine Electrical Systems  
SCI 200 † (3) Science, Technology & Society

**FOURTH SEMESTER (Winter) - 18.5 credit hours**
AMS 214 (4.5) Automatic Transmissions  
AMS 222 (4) Manual Transmissions  
AMS 232 † (4) Automotive Co-op  
HUM 200 † (3) Modernity & Culture  
SSC 200 † (3) The Social Sciences & Contemporary America

† Prerequisite required - see course description

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**Certificate of Achievement Automotive Technology (2 Year)**

**FIRST SEMESTER (Fall) - 17.5 credit hours**
AMS 104 (2) Basic Automotive Electricity  
AMS 110 (4.5) Engine Fundamentals & Overhaul  
AMS 125 (5) Engine Performance I  
CIS 100 † (3) Intro to Info Processing Systems  
WLD 126 (3) Basic Welding I

**SECOND SEMESTER (Winter) - 18 credit hours**
AMS 116 † (3) Electrical Systems I: Electrical Accessories  
AMS 124 (4) Automotive Heating & Air Conditioning  
AMS 126 † (5) Engine Performance II  
ENG 111 † (3) Freshman English Composition  
MAT 101 (3) Basic Mathematics

**THIRD SEMESTER (Fall) - 15 credit hours**
AMS 205 (4) Steering & Suspension Systems  
AMS 206 (4) Brakes  
AMS 223 † (4) Electrical Systems II: Engine Electrical Systems  
SPE 101 (3) Fundamentals of Communication OR  
SPE 257 (3) Public Speaking

**FOURTH SEMESTER (Winter) - 12.5 credit hours**
AMS 214 (4.5) Automatic Transmissions  
AMS 222 (4) Manual Transmissions  
AMS 232 † (4) Automotive Co-op

† Prerequisite required - see course description

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**Certificate of Achievement Automotive Service Mechanic (1 Year)**

**FIRST SEMESTER (Fall) - 17.5 credit hours**
AMS 104 (2) Basic Automotive Electricity  
AMS 110 (4.5) Engine Fundamentals & Overhaul  
AMS 125 (5) Engine Performance I  
CIS 100 † (3) Intro to Info Processing Systems  
WLD 126 (3) Basic Welding I

**SECOND SEMESTER (Winter) - 18 credit hours**
AMS 116 † (3) Electrical Systems I: Electrical Accessories  
AMS 124 (4) Automotive Heating & Air Conditioning  
AMS 126 † (5) Engine Performance II  
ENG 111 † (3) Freshman English Composition  
MAT 101 (3) Basic Mathematics
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**LEVEL II General Education Requirements: Humanities, Science, Social Sciences**

**Communication Skills (Group I) - 9 credit hours**
- ENG 111 † (3) Freshman English Composition
- ENG 222 † (3) Expository Writing & Research
- SPE 101 (3) Fundamentals of Communication OR
- SPE 257 (3) Public Speaking

**Science and Mathematics (Group II) - 9 credit hours**
- MAT 105 † (3) Intermediate Algebra
- SCI 200 † (3) Science, Technology & Society
- Plus 3 additional credit hours

**Social Sciences (Group III) - 15 credit hours**
- POL 201 (3) Intro to American Government
- PSY 101 (3) Intro to General Psychology
- PSY 206 † (3) Abnormal Psychology OR
- SOC 250 (3) The American Family
- SOC 101 (3) Principles of Sociology
- SOC 200 † (3) Contemporary Social Problems

**Social Sciences (Group III) - 15 credit hours**
- PSY 101 (3) Intro to General Psychology
- PSY 206 † (3) Abnormal Psychology
- SOC 101 (3) Principles of Sociology
- SOC 200 † (3) Contemporary Social Problems

**Humanities and Fine Arts (Group IV) - 9 credit hours**
- HUM 200 † (3) Modernity & Culture
- Plus 6 additional credit hours, which must be taken from at least two different disciplines.

**Applied Arts and Sciences (Group V) - 18 credit hours**
- CIS 100 † (3) Intro to Info Processing Systems
- CRJ 200 (3) Introduction to Corrections
- CRJ 201 (3) Legal Issues in Corrections
- CRJ 210 (3) Correctional Institutions
- CRJ 211 (3) Client Growth & Development
- CRJ 221 (3) Client Relations in Corrections

**Health & Physical Education (Group VI) - 3 cr. hours**
- Elective (3) Recommend: PED 255 Physical Training

† Prerequisite required - see course description

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**Associate in Applied Science Degree**

**Criminal Justice - Corrections**

**Associate in Applied Science Degree**

**Criminal Justice - Law Enforcement**

**4yr. Transfer Program**

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**LEVEL II General Education Requirements: Humanities, Science, Social Sciences**

**Communication Skills (Group I) - 9 credit hours**
- ENG 111 † (3) Freshman English Composition
- ENG 222 † (3) Expository Writing & Research
- SPE 101 (3) Fundamentals of Communication OR
- SPE 257 (3) Public Speaking

**Science and Mathematics (Group II) - 9 credit hours**
- MAT 105 † (3) Intermediate Algebra
- SCI 200 † (3) Science, Technology & Society
- Plus 3 additional credit hours

**Social Sciences (Group III) - 15 credit hours**
- POL 201 (3) Intro to American Government
- PSY 101 (3) Intro to General Psychology
- PSY 206 † (3) Abnormal Psychology OR
- SOC 250 (3) The American Family
- SOC 101 (3) Principles of Sociology
- SOC 200 † (3) Contemporary Social Problems

**Social Sciences (Group III) - 15 credit hours**
- PSY 101 (3) Intro to General Psychology
- PSY 206 † (3) Abnormal Psychology
- SOC 101 (3) Principles of Sociology
- SOC 200 † (3) Contemporary Social Problems

**Humanities and Fine Arts (Group IV) - 9 credit hours**
- HUM 200 † (3) Modernity & Culture
- Plus 6 additional credit hours, which must be taken from at least two different disciplines.

**Applied Arts and Sciences (Group V) - 18 credit hours**
- CIS 100 † (3) Intro to Info Processing Systems
- CRJ 200 (3) Introduction to Corrections
- CRJ 201 (3) Legal Issues in Corrections
- CRJ 210 (3) Correctional Institutions
- CRJ 211 (3) Client Growth & Development
- CRJ 221 (3) Client Relations in Corrections

**Health & Physical Education (Group VI) - 3 cr. hours**
- Elective (3) Recommend: PED 255 Physical Training

† Prerequisite required - see course description

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**NOTE:** Please see your advisor. Prior to entering Law Enforcement programs, students must meet with an advisor to assure that the student meets the minimum standards set by Michigan Commission on Law Enforcement Standards. After completion of the LEN associate program, students take and pass the Michigan Commission on Law Enforcement Standards (MCOLES) pre-employment reading/writing test and a physical skills test before entering a college MCOLES approved Police Academy.

† Prerequisite required - see course description
Associate in Applied Science Degree
Criminal Justice - Law Enforcement Pre-Service

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

LEVEL I  General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257

FIRST SEMESTER (Fall) - 15 credit hours
LEN 205 † (3) Intro to Law Enforcement & CRJ
CIS 100 † (3) Intro to Info Processing Systems
ENG 111 † (3) Freshman English Composition
MAT 105 † (3) Intermediate Algebra
SPE 101 † (3) Fundamentals of Communication OR
SPE 257 † (3) Public Speaking

LEVEL II General Education Requirements:
Humanities, Science, Social Sciences

SECOND SEMESTER (Winter) - 15 credit hours
LEN 203 † (3) Criminal Law for Police Officers
LEN 204 † (3) Criminal Investigation
HUM 200 † (3) Modernity & Culture
SCI 200 † (3) Science, Technology & Society
SSC 200 † (3) The Social Sciences & Contemporary America

THIRD SEMESTER (Fall) - 12 credit hours
LEN 200 † (3) Evidence
LEN 201 † (3) Fundamentals of Supervision & Management in Criminal Justice
LEN 202 (3) Juvenile Law & Procedures
Group IV Elective (3) Recommend: PED 255 Physical Training

FOURTH SEMESTER (Winter) - 21 credit hours
Police Academy (Kirtland Community College OR Delta College)
LEN 289 (21) Police Academy

NOTE: Please see your advisor prior to entering Law Enforcement Associate Pre-Service Program. Students should be made aware of the pre-employment reading/writing test and a physical skills test mandated by the Michigan Commission on Law Enforcement Standards (MCOLES).

† Prerequisite required - see course description

Associate in Applied Science Degree
Criminal Justice - Law Enforcement - SVSU
4 yr. Transfer Program

You, as a student, are responsible for meeting requirements for your curriculum. Please see a counselor/advisor for consultation and current program guides.

Also, for more information on course requirements and selecting electives based on your chosen minors, see Saginaw Valley State University’s Catalog.
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**Prerequisites to the Program:**
- First Aid and CPR Certification
- Validation of no Evidence of Child Abuse or Neglect per Public Act 68 of 1993
- Health Requirements Met

**LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**FIRST SEMESTER (Fall) - 14 credit hours**
- ECE 101 † (4) Intro to Early Childhood Education
- ECE 112 † (4) Infancy
- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition

**SECOND SEMESTER (Winter) - 17 credit hours**
- ECE 113 † (4) Early Childhood
- ECE 114 † (4) Interacting with Children, Parent/Adult Child Relations
- MAT 101 (3) Basic Mathematics
- PSY 101 (3) Introduction to General Psychology
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

**LEVEL II General Education Requirements: Humanities, Science, Social Sciences**

**THIRD SEMESTER (Fall) - 15 credit hours**
- ECE 201 † (3) The Learning Environment
- ECE 202 † (3) Creative Development of the Child
- ECE 206 † (3) Parent, School & Community Involvement
- PSY 281 † (3) Behavior Modification OR PSY 212 † (3) Developmental Psychology
- SSC 200 † (3) The Social Sciences & Contemporary America OR Select one: ANT 170, POL 201, SOC 101, SOC 250

**FOURTH SEMESTER (Winter) - 16 or 17 credit hours**
- ECE 207 † (4) Early Childhood Education Practicum
- ECE 208 † (4) Program Management II
- HUM 200 † (3) Modernity & Culture
- SCI 200 † (3) Science, Technology & Society
- Select one: Elective (2 or 3 cr.) ART 245, ECE 150, ELE 107, ENG 222, ENG 281, MUS 131

**NOTE:** All ECE courses must be completed with a Grade "C" or better.

† Prerequisite required - see course description

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**Certificate of Achievement**

**Early Childhood Education**

**Prerequisites to the Program:**
- First Aid and CPR Certification
- Validation of no Evidence of Child Abuse or Neglect per Public Act 68 of 1993
- Health Requirements Met

**FIRST SEMESTER (Fall) - 14 credit hours**
- ECE 101 † (4) Intro to Early Childhood Education
- ECE 112 † (4) Infancy
- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition

**SECOND SEMESTER (Winter) - 17 credit hours**
- ECE 113 † (4) Early Childhood
- ECE 114 † (4) Interacting with Children, Parent/Adult Child Relations
- MAT 101 (3) Basic Mathematics
- PSY 101 (3) Introduction to General Psychology
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

**NOTE:** All ECE courses must be completed with a Grade "C" or better.

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I  General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**FIRST SEMESTER (Fall) - 18 credit hours**
- ART 105 (3) Drawing I - Introductory
- ART 115 (3) Design I
- ART 135 (3) Graphic Design I
- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition
- HUM 101 (3) World of Creativity I

**SECOND SEMESTER (Winter) - 18 credit hours**
- ART 205 † (3) Drawing II
- ART 215 † (3) Design II
- ART 235 † (3) Graphic Design II
- CIS 210 † (3) Desktop Publishing
- HUM 102 (3) World of Creativity II
- SPE 101 (3) Fundamentals of Communication OR SPE 257 (3) Public Speaking

**LEVEL II General Education Requirements:**
- **Humanities, Science, Social Sciences**

**THIRD SEMESTER (Fall) - 18 credit hours**
- ART 110 (3) Basic Photography
- ART 130 (3) Painting I
- ART 210 † (3) Illustration
- ART 236 † (3) Graphic Design III - 3D/Animation
- ART 238 † (3) Advanced Desktop Publishing
- MAT 101 (3) Basic Mathematics

**FOURTH SEMESTER (Winter) - 12 credit hours**
- ART 240 † (3) Studio Problems in Graphic Design
- SSC 200 † (3) The Social Sciences & Contemporary America
- SCI 200 † (3) Science, Technology & Society
- Choose one Elective from the following:
  - ART 237 † (3) Photography II
  - ART 281 † (3) Internship I
  - ART 282 † (3) Internship II
  - ART 220 † (3) Figure Drawing I
  - ART 230 † (3) Painting II
  - BUS 231 (3) Principles of Advertising
  - DRF 120 (3) Intro to AutoCAD

† Prerequisite required - see course description
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements: CIS 100, MAT, ENG 111, SPE 101 or SPE 257**

**FIRST SEMESTER (Fall) - 18 credit hours**
- HRA 102 (3) Refrigeration Fundamentals
- HRA 106 (3) Heating Fundamentals
- HRA 116 (3) Fundamentals of Electricity
- CIS 100 † (3) Intro to Info Processing Systems
- ENG 111 † (3) Freshman English Composition
- MAT 104 † (3) Basic Algebra OR
- MAT 124 † (5) Precalculus *

**SECOND SEMESTER (Winter) - 17 credit hours**
- HRA 104 † (3) Residential Refrigeration
- HRA 108 † (3) Heating Systems
- HRA 205 † (2) Motors & Controls
- HRA 285 † (3) Co-op (Heating, Ref & Air Conditioning)
- DRF 120 (3) Intro to AutoCAD
- SPE 101 (3) Fundamentals of Communication OR
- SPE 257 (3) Public Speaking

**LEVEL II General Education Requirements:**
- Humanities, Science, Social Sciences

**THIRD SEMESTER (Fall) - 14 credit hours**
- HRA 105 † (3) Hydronics
- HRA 204 † (3) Light Commercial Refrigeration
- HRA 220 † (2) Commercial Refrigeration Design
- HUM 200 † (3) Modernity & Culture
- SCI 100 † (3) Science, Technology & Society

**FOURTH SEMESTER (Winter) - 18 credit hours**
- HRA 215 † (3) HRA Controls
- HRA 223 † (3) Residential HVAC Load Determination
- HRA 225 † (3) Residential HVAC Distribution/Design
- HRA 240 † (3) Adv Commercial Refrigeration
- BUS 162 † (3) Principles of Marketing OR
- PHY 105 † (5) Introductory College Physics I *
- SSC 200 † (3) The Social Sciences & Contemporary America

* Recommended for students transferring to Ferris State University
† Prerequisite required - see course description

**Certificate of Achievement**

**Heating/Refrigeration/Air Conditioning**

**FIRST SEMESTER (Fall) - 15 credit hours**
- HRA 102 (3) Refrigeration Fundamentals
- HRA 106 (3) Heating Fundamentals
- HRA 116 (3) Fundamentals of Electricity
- ENG 111 † (3) Freshman English Composition
- MAT 104 † (3) Basic Algebra OR
- MAT 124 † (5) Precalculus

**SECOND SEMESTER (Winter) - 17 credit hours**
- HRA 104 † (3) Residential Refrigeration
- HRA 108 † (3) Heating Systems
- HRA 205 † (2) Motors & Controls
- DRF 120 (3) Intro to AutoCAD
- CIS 100 † (3) Intro to Info Processing Systems
- SPE 101 (3) Fundamentals of Communication OR
- SPE 257 (3) Public Speaking

† Prerequisite required - see course description
Certificate of Achievement
Computer Assisted Drafting (CAD)

FIRST SEMESTER (Fall) - 14 credit hours
- DRF 101 (3) Basic Mechanical Detail Drafting
- DRF 120 (3) Intro to AutoCAD
- IND 101 (4) Basic Machine Shop Practices
- IND 113 (2) CNC Machining
- MAT 170 † (2) Technical Mathematics II OR
- MAT 105 † (3) Intermediate Algebra

SECOND SEMESTER (Winter) - 16 credit hours
- DRF 102 † (4) Adv Mechanical Detail Drafting
- DRF 105 † (2) Introduction to Geometric Dimensioning & Tolerancing
- DRF 210 † (3) Adv Computer Assisted Drafting
- IND 116 † (4) CNC Programming
- IND 140 (3) Metallurgy & Industrial Materials

THIRD SEMESTER (Spring or Summer) - 3 cr. hours
- ENG 111 † (3) Freshman English Composition

† Prerequisite required - see course description

Certificate of Achievement
Machine Tool Operation

FIRST SEMESTER (Fall) - 15 credit hours
- IND 101 (4) Basic Machine Shop Practices
- IND 113 (2) CNC Machining
- DRF 120 (3) Intro to AutoCAD
- MAT 170 † (2) Technical Mathematics II OR
- MAT 105 † (3) Intermediate Algebra
- IND, DRF, or WLD Elective (3 or 4 cr. depending on MAT sequence)

SECOND SEMESTER (Winter) - 16 credit hours
- IND 102 † (4) Machine Tool Practices II
- IND 116 † (4) CNC Programming
- IND 140 (3) Metallurgy and Industrial Materials
- DRF 105 † (2) Introduction to Geometric Dimensioning & Tolerancing
- ENG 111 † (3) Freshman English Composition

† Prerequisite required - see course description
### Associate in General Technology Degree

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**Restricted Program:** Please check with a MMCC Counselor. Students who enter this program are sponsored by local fire departments.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**LEVEL II General Education Requirements:** Humanities, Science, Social Sciences

<table>
<thead>
<tr>
<th>Communication Skills (Group I) - 6 credit hours</th>
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<tbody>
<tr>
<td>ENG 111 † (3) Freshman English Composition</td>
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<tr>
<td>SPE 101 † (3) Fundamentals of Communication OR</td>
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<td>SPE 257 (3) Public Speaking</td>
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<tr>
<th>Science and Mathematics (Group II) - 9 credit hours</th>
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<tbody>
<tr>
<td>MAT 101 (3) Basic Mathematics</td>
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<tr>
<td>SCI 200 † (3) Science, Technology &amp; Society</td>
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<td>Elective (3) Recommend: CHM 100</td>
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### Associate in Fire Science Degree

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 12 of these credit hours must be taken at MMCC.

**LEVEL I General Education Requirements:** CIS 100, MAT, ENG 111, SPE 101 or SPE 257

**LEVEL II General Education Requirements:** Humanities, Science, Social Sciences

<table>
<thead>
<tr>
<th>Communication Skills (Group I) - 9 credit hours</th>
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<tr>
<td>ENG 111 † (3) Freshman English Composition</td>
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<td>SPE 257 (3) Public Speaking</td>
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<tr>
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<td>MAT 101 (3) Basic Mathematics</td>
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<td>SCI 200 † (3) Science, Technology &amp; Society</td>
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<tr>
<th>Social Sciences (Group III) - 9 credit hours</th>
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<tr>
<td>SSC 200 † (3) The Social Sciences &amp; Contemporary America</td>
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Plus 6 additional credit hours.

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<tr>
<th>Humanities and Fine Arts (Group IV) - 3 credit hours</th>
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<td>HUM 200 † (3) Modernity &amp; Culture</td>
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<tr>
<th>Applied Arts and Sciences (Group V) - 30 credit hours</th>
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<tr>
<td>FFT 101 (8) Fire Fighter I Training</td>
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<td>FFT 102 (8) Fire Fighter II Training</td>
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<td>FFT 105 (4) Fire Fighter Training IIIA OR</td>
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<tr>
<td>FFT 100.XX (4) Electives from FFT 100 level to equal 4 credit hours</td>
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FFT, MET and/or HED Electives (Group VI) to complete requirement of 30 credit hours.

**Electives - 5 credit hours**

**NOTE:** FTT courses taken other than at MMCC will not be evaluated until the student has completed the 32 hours of general education requirements.

† Prerequisite required - see course description
Certificate of Achievement
Contracting With Business & Industry

FIRST SEMESTER (Fall) - 16 credit hours

CBI 101  (10) Contracting w/Business & Industry I
CIS 100  † (3) Intro to Info Processing Systems
ENG XXX (3) Related English Elective

SECOND SEMESTER (Winter) - 16 credit hours

CBI 102 † (10) Contracting w/Business & Industry II
MAT 101 (3) Basic Mathematics (or higher level)
Electives (5) Selected with the Program Coordinator

One English and one mathematics course appropriate to the student’s chosen area of study are required.

† Prerequisite required - see course description

Certificate of Achievement
Customer Energy Specialist

Restricted Program: Please check with a MMCC Counselor

The following courses may be taken in any sequence, providing the necessary prerequisites have been met. Consumers Energy may recommend that certain courses be taken earlier to enhance or accelerate the intern's Customer Energy Specialist development.

BUSINESS - 16 credit hours:

ACC 201  (4) Financial Accounting
BUS 162  (3) Principles of Marketing
BUS 151  (3) Introduction to Business Issues
BUS 153  (3) Business Law
CIS 100 † (3) Intro to Info Processing Systems

COMMUNICATIONS - 9 credit hours:

ENG 111 † (3) Freshman English Composition
ENG 222 † (3) Expository Writing & Research
SPE 101 (3) Fundamentals of Communication OR
SPE 257 (3) Public Speaking

TECHNICAL - 23 credit hours:

DRF 101 (3) Basic Mechanical Detail Drafting
DRF 120 (3) Intro to AutoCAD
DRF 210 † (3) Adv Computer Assisted Drafting
MAT 101 (3) Basic Mathematics OR
MAT 104 † (3) Basic Algebra
AMS 104 (2) Basic Automotive Electricity
HRA 116 (3) Fundamentals of Electricity
PHY 103 † (4) Applied Physics OR
PHY 105 † (5) Introductory College Physics I
Electives (1-2 cr.) See suggested courses below.

Electives will depend on the total number of other credit hours earned. A minimum of 48 credit hours is required for this program.

SUGGESTED ELECTIVE COURSES:

ACC 211 † (4) Managerial Accounting
BUS 241 (3) Supervision & Personnel Administration
OR BUS 222 † (3) Labor and Management Relations
MAT 105 † (3) Intermediate Algebra
SPE 253 (3) Small Group Communications

† Prerequisite required - see course description

Certificate of Achievement
Welding Technology

FIRST SEMESTER (Fall) - 15 credit hours

WLD 126 (3) Basic Welding I
WLD 127 † (3) Basic Welding II
DRF 101 (3) Basic Mechanical Detail Drafting
IND 140 (3) Metallurgy & Industrial Materials
MAT 101 (3) Basic Mathematics

SECOND SEMESTER (Winter) - 17-18 credit hours

WLD 130 † (3) Metal Fabrication
WLD 150 (3) Non-Destructive Testing OR
IND 101 (4) Basic Machine Shop Practices
WLD 225 † (8) Advanced Welding
ENG 111 † (3) Freshman English Composition

† Prerequisite required - see course description
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<td>Welding Technology (WLD)</td>
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The College year is composed of two semesters, one spring session, and one summer session; and the units of academic study are recorded in credit hours. Class dates and times are published in the college schedule.

**EXAMPLE**

ENG 201 English Literature I (F) 3(3-0)
A survey of works of major authors of English literature from Beowulf through the 18th century.
Prerequisite: ENG 112 or permission of the Instructor

**COURSE LISTING DEFINITIONS ARE AS FOLLOWS:**

Course Number and Title: Designates the course discipline, number and title. Courses numbered 000-099 are designated to serve purposes at other than normal freshman or sophomore levels. Such courses normally will not transfer or satisfy graduation requirements. Courses numbered 100-199 are primarily introductory in scope and are normally, although not necessarily, taken during the freshman year. Courses numbered 200 and above are designed for the more advanced student and are usually elected during the sophomore year.

Course Availability: The letter code designates the semester in which the course is usually offered: F=Fall, W=Winter, S=Spring, SU=Summer.

Credit Hours: The number of credits a course is assigned toward graduation.

Lecture-Laboratory Hours: The first number in parentheses refers to the hours the student will spend per week in the classroom, in a lecture setting. The second number refers to the instructional hours that a student will spend in a laboratory. The addition of these two figures will produce the total number of contact hours the student will spend per week in class.

Course Description: An explanation of the knowledge and skills gained by successful completion of the course.

Prerequisite: Requirements which must be met or courses which must be taken before enrolling in a specific course.

Corequisite: Courses which must be taken at the same time as the desired course unless previously completed.

**ACCOUNTING**

ACC 050 Accounting Basics (F,W) 1(0-2)
This Individualized Learning Center course is a computerized accounting course designed for understanding of basic accounting concepts. The course may be taken as a review of such material or as initial preparation for further accounting studies.

ACC 201 Financial Accounting (F,W) 4(4-0)
This course is an introduction to the accounting process including measurement, reporting, and interpretation of principles for assets, liabilities, owners’ equity, revenues, and expenses. Covers service and merchandising types of businesses.
Prerequisite: OIS 120 for Office Information students only

ACC 205 Payroll Accounting (F) 3(3-1)
This course is designed as a study of the methods of computing wages and salaries, keeping payroll records, and making government reports. Students will practice completing government forms and filing of periodic reports. This course also introduces students to the processing of payroll through the use of the microcomputer. In addition to the classroom work, each student is required to do a minimum of one hour of individual laboratory work per week.
Prerequisite: ACC 201 recommended

ACC 211 Managerial Accounting (F,W) 4(4-1)
The emphasis in this course is on uses of accounting data internally by managers in directing the affairs of organizations. An introduction to financial statement analysis and manufacturing accounting included. In addition to classroom work, each student is required to do a minimum of one hour of individual laboratory work per week.
Prerequisites: CIS 100, Grade of “C” or better in ACC 201

ACC 231 Principles of Cost Accounting (W) 3(3-0)
This course covers the use of cost accounting as an aid to management decision making. Process, job order, and standard cost systems are covered in detail.
Prerequisite: ACC 211

ACC 251 Tax Accounting I (F) 3(3-0)
This course is designed for persons new or inexperienced in the preparation of federal and Michigan income tax returns. The emphasis is preparation of form 1040 and supporting schedules. Included is an introduction to computerized tax planning and preparation.
Prerequisite: ACC 201

ACC 252 Tax Accounting II (W) 3(3-0)
The emphasis in this course is placed on current tax law provisions. Topics include corporations, partnerships, and estates and trusts, as well as more complex individual tax returns.
Prerequisite: ACC 251
ACC 261 Computerized Accounting (F)  3(3-1.5)
An introduction to the use of computers in accounting, this course covers computerized business accounting systems including computerized payroll systems. In addition, there will be utilization of spreadsheets. In addition to classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week. Prerequisites: CIS 130, ACC 211

ACC 280 Co-op (Accounting) (W)  3(1-10)
Co-op is a capstone course planned for the last semester of the Associate in Business: Accounting Degree. The students will be employed in an approved co-op position selected by the college coordinator and will also attend a weekly one hour classroom lecture/discussion. A waiver may be allowed for the work component only with equivalent previous/present work experience as determined by the coordinator. An individual evaluation is made by the coordinator only upon student request. Documentation by the employer will be required. Prerequisite: The student must have completed at least 45 credit hours in the Associate in Business: Accounting Degree.

ACC 290-299 Selected Topics  1-3(1 to 3-0)
These courses are designed to investigate various topics in Accounting not included in current courses. Topics will be announced.

ALLIED HEALTH

ALH 100 Medical Terminology  2(2-0)
An introduction to medical terminology. Emphasis is placed on the meaning, pronunciation, spelling, and application of common medical terms, abbreviations, prefixes, stems, suffixes, etc., as related to the human body—tissues, organs, systems, etc.

ALH 107 Competency Evaluated Nurse Aide  (F,W,SU)  6(3-8)
This course is designed to prepare the individual to fulfill the role of direct care giver/nurse aide in a health care setting. The course introduces scientific principles and skills which will optimize the client’s functional independence and support and promote their individual rights. This course includes classroom activities, skill practice time in the laboratory, and supervised clinical practice at an area health care agency. Upon completion of the course, the student will be eligible to take the clinical and written exams required for Competency Evaluated Nurse Aide (CENA).

ALH 112 Insurance Billing (F)  3(3-1.5)
This course deals with the insurance and billing processes needed to deal with the major health carriers. Students will learn how to process a variety of claim forms and will learn proper billing, recordkeeping, and collection procedures. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week. Prerequisite: ALH 100

ALH 125 Introduction to the Health Care Environment (W)  3(3-0)
This course is designed to introduce the student to the American Health Care system, health care providers, and beneficiaries of health care and business and government's role in the modes of delivery. The course provides the medical assisting student with the foundation upon which other courses build and expand. Basic skills and techniques necessary to assist the physician in the examination and treatment of patients will be covered as well as communication, telephone skills, and scheduling of appointments. This includes lecture, discussion, skills practice, and observation time in a medical office. Prerequisites: ALH 100, BIO 131

ALH 210 Clinical Procedures/Pharmacology (F)  4(3-2)
Introduction to common procedures performed in the medical office setting and the Science of Pharmacology. A course designed with emphasis of safe, accurate administration of medications. Through use of the text, the students will acquire knowledge of drug actions, major side-effects and techniques of administration as well as gain basic skills necessary to assist the physician in the examination of, diagnosis and treatment of patients in the office setting. Prerequisites: ALH 125, MAT 101

ALH 220 Medical Law and Ethics (W)  2(2-0)
This course is designed to teach the legal and ethical aspects of employment in health care delivery. Case studies will be reviewed and students will become familiar with the principles of medical ethics as they apply to both physicians and medical assistants. A few of the topics to be covered are: patient obligation in a medical contract, patient confidentiality, standards of care, physician's liability for employees, release of information, and patient rights and responsibility in receiving medical care.

ALH 230 Laboratory Procedures for the Medical Office (W)  3(2-2)
This course is designed primarily for the allied health field, and medical assistant students in particular. The student should have a basic understanding of both biological principles and anatomy and physiology. The student will, through lecture and lab, gain an understanding of the theory of laboratory procedures as well as the skills to perform accurately in the Physician’s Office Laboratory (POL) setting. Prerequisite: ALH 210

ALH 250 Medical Assistant Office Externship (S)  3(1-10)
This externship course provides supervised and professional work experience in a medical office setting and will include both administrative and clinical procedures. Written projects and reports will enable the student to develop management skills, professional communications and critical thinking skills. Prerequisite: Completed the first 4 semesters of the Medical Assistant program.
ALH 287 Sports Medicine Techniques for Treating Athletic Injuries (F,S,SU) 3(3-0)
This course is devoted to engendering a knowledge and the understanding of the prevention and treatment of athletic injuries. This course will acquaint students and give opportunity for concentrated study by means of participation, observation, discussion and research of some of the latest techniques, practices, problems and theories pertaining to athletic injuries; bandaging, strapping and other preventative techniques; and the treatment and care of athletic injuries.

ALH 295-299 Current Topics in Allied Health 1-3(1 to 3-0)
These courses are designed to investigate various topics in health not included in current courses. Topics will be announced.

ANTHROPOLOGY

ANT 170 Introduction to Cultural Anthropology 3(3-0)
The student is introduced to the process of culture evolution as well as other anthropological theories. The purpose is to give the student an understanding of the underlying unity of the human experience while, at the same time, providing insight into cultural variability.

ART

ART 105 Drawing I - Introductory 3(3-0)
A basic introduction to drawing media and techniques and an exploration of the concepts of space and form in varied subject matters.

ART 110 Basic Photography 3(3-0)
This course is designed for persons wanting a working knowledge of cameras, lenses, and fundamentals of photography. Topics covered include: f stops, shutter speeds, depth of field, film selection, composition, electronic flashes, and other basics.

ART 115 Design I 3(3-0)
Elements and principles of design and experiences with materials in problem situations.

ART 130 Painting I 3(3-0)
An introduction to painting with the exploration of media, techniques, and the concepts of space, form, and color.

ART 135 Graphic Design I 3(3-0)
Introduction to graphic design production. The various concepts, techniques, and processes used to prepare for reproduction, including typography, layout and printing technology.

ART 137 Electronic Photography (F) 3(3-0)
An introduction to the use of computers in the field of photography. Students will learn theory and receive hands-on experience in photographic image manipulations and related areas. Students will scan images into computers, manipulate them, and print out hard copies of the manipulated photographic images.
Prerequisites: ART 110, CIS 100

ART 150 Printmaking 3(3-0)
Introduction to the basic techniques of woodcut and printing as a fine art.

ART 205 Drawing II 3(3-0)
A concentration of experimental media, techniques, spatial relationships, and conceptual processes of drawing.
Prerequisite: ART 105

ART 210 Illustration 3(3-0)
Development of conceptual and technical skills in drawing for reproduction using various media.
Prerequisites: ART 235, ART 205

ART 215 Design II 3(3-0)
Continuation of Design I, elements and principles of two-dimensional design. Introduction to three-dimensional design through problem-solving exercises.
Prerequisite: ART 115

ART 220 Figure Drawing I (F) 3(3-0)
Students will learn to draw the human figure based on an understanding of anatomy, proportion, perspective, and the effect of light.
Prerequisite: ART 205 or permission of Instructor.

ART 230 Painting II 3(3-0)
Continuation of the aims of Painting I with emphasis on personal development.
Prerequisite: ART 130

ART 235 Graphic Design II 3(3-0)
Continuation of Graphic Design I with emphasis on communications design and digital applications.
Prerequisites: ART 135

ART 236 Graphic Design III - 3D/Animation 3(3-0)
Continuation of ART 235 with introduction to 3D modeling and animation techniques.
Prerequisite: ART 235 or permission of Instructor

ART 237 Photography II 3(3-0)
A continuation of ART 110 Basic Photography. Students will be given advanced projects in exposure, lighting, motion control, depth control, film and composition. Projects will be completed in black and white film, with the students processing and printing their own projects.
Prerequisites: ART 110
ART 238 Advanced Desktop Publishing 3(3-0)
This course examines the process of taking a design layout successfully through the stages of a computer page layout software program, pre-press, proofing, printing, finishing and binding. Students will learn the use of scanners, halftones, color separations, proper resolutions, and effective fonts.
Prerequisite: CIS 210 or permission of the Instructor

ART 240 Studio Problems in Graphic Design 3(3-0)
An opportunity for students to work independently on projects related to the graphic design industry. Included in the course will be individual assistance in preparing a portfolio for seeking employment or further education.
Prerequisites: ART 110, 130, 210, 215, 236, CIS 210

ART 245* Art in the Elementary School 3(3-0)
An investigation of how art fits into the Elementary School Curriculum and what its impact is on all elementary children. To be presented through lecture, readings, slides or prints, and a team teaching experience by all participants.
(*Note: Please be advised that ART 245 will transfer to Central Michigan University only if: 1) ELE/SED 107 has minimum grade of "B"; and 2) 45 clock hours of pre-professional experience in K-12 classroom.

ART 280 Independent Study in Art I 3(3-0)
An opportunity for advanced students to work with an instructor on individualized projects in various selected media.
Prerequisite: Permission of the Instructor.

ART 281 Internship I (W,SU) 3(1-10)
Designed to provide on-site work experience in a business environment. Under cooperative supervision by the College and the work-site Supervisor, students will further develop skills and gain training in the design field.
Prerequisite: Permission of the Internship Coordinator

ART 282 Internship II (W,SU) 3(1-10)
Continuation of ART 281. Designed to provide on-site work experience in a business environment. Under cooperative supervision by the College and the work-site Supervisor, students will further develop skills and gain training in the design field.
Prerequisites: ART 281 and permission of the Internship Coordinator

ART 285 Independent Study in Art II 3(3-0)
Continuation of ART 280.
Prerequisites: ART 280 and permission of the Instructor

AMS 104 Basic Automotive Electricity (F) 2(2-1)
Studies fundamentals and applications in automotive electrical, electronics, voltage, current, resistance, series and parallel circuits, magnetism, application of Ohm’s Law, and wiring diagrams. Develops skills in establishing an electrical base for advanced electrical/electronic courses through the use of meters and test equipment.

AMS 110 Engine Fundamentals and Overhaul (F) 4.5(2-5)
Studies will include engine principles, design construction and operation. Skill development of proper service procedures of modern gas engines will be stressed. The student will remove and replace an engine from a car or light truck. They will also disassemble and reassemble a complete engine with emphasis on manufacturer’s specifications and procedures.

AMS 116 Electrical Systems I: Electrical Accessories (W) 3(2-2)
Studies lighting systems, instruments, warning devices, horn, and other accessory circuits using wiring diagrams. Develops skills in diagnosis, adjustment and repair of accessory and convenience circuits.
Prerequisite: AMS 104 (may be taken concurrently) or Instructor approval

AMS 124 Automotive Heating & Air Conditioning (W) 4(2-3)
Studies passenger car and light truck cooling, heating and air conditioning system operation and diagnosis. Will also cover the 134A system service. Develops skills in diagnosis and repair of the cooling, heating and air conditioning system components.

AMS 125 Engine Performance I (F) 5(2-6)
Studies review of basic electricity and magnetism, fundamentals of electronics, basic ignition systems, basic fuel systems and introduction to emission systems. This course establishes a base for advanced work in AMS 126.

AMS 126 Engine Performance II (W) 5(2-6)
Studies units of instruction on G.M., Ford and Chrysler throttle body and multi-port fuel injection systems. Also covers distributorless ignition systems and OBD II operation and service. The students will be performing operational tests on late model cars using scan tools and other special test tools. They will be doing driveability testing and troubleshooting on late model cars.
Prerequisites: AMS 104, AMS 125, OR State certified in engine tune-up area

AMS 205 Steering & Suspension Systems (F) 4(2-4)
Studies suspension and steering systems. Skill development will be focused on subframe alignment, steering, suspension, and four wheel alignment.

AMS 206 Brakes (F) 4(2-4)
Studies brake systems. Skill development will be focused on drum, disc, hydraulic, power assist, and anti-lock brake systems.
**AMS 214** Automatic Transmissions (W) 4.5(2-5.5)
Studies passenger car and light truck automatic transmissions terminology, operation, service and diagnosis. Develops skills in service and repair of passenger car and light truck conventional and computer-shifted front-wheel and rear-wheel drive transmissions.

**AMS 222** Manual Transmissions (W) 4(2-4)
Studies passenger car and light truck clutches, manual transmissions, drive shafts, differentials, transaxles, front-drive axles, and transfer cases operation, service and diagnosis. Develops skills in diagnosis and service of clutches, manual transmissions, drive shafts, differentials, transaxles, front-drive axles, and transfer cases.

**AMS 223** Electrical Systems II: Engine Electrical Systems (F) 4(2-4)
Studies battery service, cranking systems, and charging systems. Develops skills in diagnosis, adjustment and repair of battery, cranking and charging systems.

**AMS 232** Automotive Co-op (W) 4(1-15)
This course is a 15 hour, 15-week internship at an automotive dealership repair facility, or automotive repair facility that provides hands-on skills to enhance the professional qualifications and employment opportunities for students.
Prerequisite: Completed first, second, and third semester AMS courses with grade “C” or better. Permission of the Co-op Coordinator required. Professional tools required.

**AMS 295** Spcl Topics/Auto. Technology 1-3(1 to 3-0)
This course is designed to investigate various topics in Automotive Technology that are not included in current courses. Topics will be announced. This course is offered based on demand.

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**BIOLOGICAL SCIENCES**

**BIO 101** College Biology (F,W) 4(3-2)
Survey of major topics in biology, with emphasis on cell structure, physiology, reproduction, genetics, evolution, behavior, and morphology of plants and animals.
Prerequisite: BIO 101

**BIO 110 Concepts in Microbiology (F)** 1(1-0)
This course is an introductory study of microorganisms such as bacteria, fungi, algae, viruses, & protozoa. The disease process involving these microorganisms will also be studied.
Prerequisite: BIO 101

**BIO 131 Basic Anatomy and Physiology (F)** 4(4-0)
This is an introductory course to Anatomy and Physiology. It is assumed that students enrolling in this course have limited background in chemistry and biological science. The major topics presented in the course are biological principles, skeletal, muscular, integumentary, nervous, circulatory, respiratory, digestive, excretory, endocrine, and reproductive organ systems.
Prerequisite: BIO 101

**BIO 141 Anatomy and Physiology I (F,W,S) 4(3-2)**
A lecture and laboratory course dealing with the anatomy and physiology of the human body with emphasis on homeostasis. Topics include skeletal, muscular, integumentary, nervous and digestive systems.
Prerequisite: BIO 101 or equivalent

**BIO 142 Anatomy and Physiology II (F,W,S) 4(3-2)**
Continuation of BIO 141. Topics include: respiratory, excretory, endocrine, reproductive, and circulatory systems. Emphasis is on physiology and integration of the systems of the body.
Prerequisite: BIO 141

**BIO 201 Botany (F) 4(3-2)**
Structure and function of major groups of plants with emphasis on metabolism and reproduction.
Prerequisite: BIO 101

**BIO 202 Field Ecology (W) 3(2-2)**
An introduction to a field study of basic ecology, with emphasis on the interactions between plants, animals, humans, and the environment.

**BIO 203 Zoology (W) 4(3-2)**
Structure and function of major groups of animals with emphasis on complete study of selected types.
Prerequisite: BIO 101

**BIO 204 Human Genetics 3(3-0)**
This is an introductory course dealing with principles of inheritance as they apply to humans. This course assumes no prior background in biology or chemistry. The topics considered are basic genetic principles, molecular basis of inheritance, regulation of gene expression, mutation, and the application of these principles to human heredity. Special emphasis is given to genetic disorders and the new technologies developed to deal with them.

**BIO 210 Microbiology (F,W) 4(3-3)**
Microbiology involves a study of the bacteria, fungi, algae, viruses, protozoa, and other related micro-organisms and their relationship to our society. The laboratory acquaints the student with standard handling and culture techniques of most of these organisms, the preparation of culture media, classification techniques, representative micro-organisms (living and prepared slides) of the various groups, standard staining methods, and a number of biochemical tests.
Prerequisite: BIO 101 or demonstrated competencies

**BIO 215 Radiation Biology 1(1-0)**
This course is an introductory study of the biological effects of exposure to ionizing radiation. Topics include factors affecting radiosensitivity, hematologic effects, and radiation induced malignancy.
Prerequisite: BIO 101
BIO 221 Nature Study 3(2-2)  
Practical knowledge of the out-of-doors is stressed. Collection and identification of plants and animals and field activities included.  
Prerequisite: BIO 101 recommended

BIO 245 Advanced Anatomy and Physiology & Intro to Pathophysiology 4(4-0)  
This course is an advanced study of the concept of Anatomy & Physiology with an emphasis on the disease process. It is intended for those students that have previously completed Anatomy & Physiology I & II more than 5 years ago and less than 10 years ago, and also for those students who would like to increase their knowledge of this subject matter. Pre-RAD or Pre-NUR students must complete this course with a grade of "B-" or better to qualify for admission into the program.  
Prerequisite: BIO 141 & 142 completed less than 10 years ago.

BIO 268 Independent Study in Biology (F,W) 1-3(1 to 3-0)  
This course is designed for students who desire to advance their understanding and challenge their ability in specialized areas of biology. Library, laboratory and/or field research is required, as is a written report at the completion of the course.  
Prerequisites: Satisfactory completion of at least one laboratory biology course and permission of the Instructor

BIO 290-299 Selected Topics 1-5(1 to 4-0 to 3)  
Courses designed to investigate various topics in Biology not included in current courses. Topics will be announced.

BUSINESS

BUS 102 Intro to Hospitality Management 3(3-0)  
This course is designed to build an understanding of the hospitality industry through an examination of the segments of the industry and appraisals of the management skills that future managers need to succeed. The student will also gain an insight into the development of the industry through studying trade publications, listening to industry professionals and planned field trips.

BUS 105 Food/Beverage Management 3(3-0)  
This course is designed to move the students through the various management steps involved in food service. Food production issues are studied from a managerial point of view. Standards in food production and beverage service are a focal area of the course. This course is designed to build the skills necessary to operate a successful and profitable food service operation.

BUS 106 Quantity Food Production Systems 3(2-2)  
This course is designed to introduce the student to quantity food preparation standards and practices as they relate to the commercial kitchen. Examples of student learning opportunities include the following: sanitation, measurement, kitchen tools and equipment, basic cooking principles, menu development, food preparation and baking—produce, salads, starches, bases, stocks, soups, meat, poultry, seafood, breakfast, dairy products, and pastry.

BUS 122 Management Theory and Practice (F) 3(3-0)  
An analysis of the manager's job including functions, activities, problems, and responsibilities. The course is designed for first-line supervisors as well as those engaged in middle-management positions. A study is made of reasons why some managers fail and others succeed.

BUS 151 Introduction to Business Issues (F,W,SU) 3(3-0)  
A broad, introductory approach to the principles, practices, and procedures employed in modern business and industrial operations. Topics include: business organization, management, the role of stockholders, wholesale and retail marketing, finance and insurance, and location and site determination. An analysis is made of the current issues facing the business environment.

BUS 153 Business Law (F,W) 3(3-0)  
Deals with the principles of the law of contracts and agencies and with the legal implications of the partnership and corporate forms of business organization.
BUS 155 Service Training 3(3-0)
This course is designed to teach the beginning hospitality student the fundamentals of excellent customer service no matter what segment of the industry he/she chooses. Through a series of lectures/role playing/case studies students will learn how to train others to work as a team to accomplish their task of giving exceptional service. Insight will also be gained by field trips, guest speakers and staying current with trade publications.

BUS 161 Principles of Merchandising (F) 3(3-0)
A detailed study of all phases of the movement of goods from the producer to the consumer. Particular attention is paid to the role of retailers and businesses that provide services to the consumer.

BUS 162 Principles of Marketing (W) 3(3-0)
Introduction to the field of marketing, including history, market environment, marketing mix, specialized fields, and marketing arithmetic. A study of the marketing functions such as buying, selling, transportation, storage, financing, and pricing is included.

BUS 171 Principles of Sales (F) 3(3-0)
Basic principles of sales techniques and personality, selection of sales force, personalities of customers, and methods of increasing sales are covered.

BUS 202 Legal Environment of Business (F,W) 3(3-0)
Introduction of the concept and use of law as a social institution.

BUS 221 Purchasing and Inventory Control (W) 3(3-0)
Presents a fundamental and practical approach to the problem of buying and basic merchandise control. Subject matter includes planning budgets and stock control through sales analysis.
Prerequisite: Grade of "C" or better in ACC 201

BUS 222 Labor and Management Relations (W) 3(3-0)
This course covers the scope of industrial personnel management with emphasis upon procuring, developing, maintaining, and effectively using the work force. Attention is given to job analysis and evaluation and union-management relationships.
Prerequisite: BUS 122

BUS 231 Principles of Advertising (F) 3(3-0)
A survey of advertising as an instrument of modern business including various forms of advertising. Particular attention is paid to advertising for small and medium-sized businesses engaged in providing services and goods to the consumer.

BUS 235 Front Office Operations 3(3-0)
This course is a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check out and settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office procedures and to human resources management. Front office procedures and management are placed within the context of the overall operation of the hotel.

BUS 241 Supervision and Personnel Administration 3(3-0)
Covers the role of supervision and personnel administration in large and small organizations. Develops techniques for hiring, training, developing, motivation, and evaluating of personnel. Covers wage, salary, and fringe-benefit administration.

BUS 250 Entrepreneurial Management 3(3-0)
A course for those persons interested in operating a small business. Course content includes financial, marketing, production management, and legal and governmental considerations which the proprietor of a successful business must manage. The course places emphasis on analysis of actual small business case studies.

BUS 255 Entrepreneurial Finance 3(3-0)
A course designed for persons desiring to operate or presently operating a small business. Course content includes the study of acquiring business ownership, initial financial planning, and on-going financing requirements. The course emphasizes actual case studies.

BUS 258 Profit Motive: Entrepreneurship 1(1-0)
The understanding of the various managerial, financial, and marketing methods used in the pursuit of profit in business. The exploration of the problems and opportunities for self-employment in the current economic environment. This course taken in combination with two additional courses selected from BUS 259, BUS 260, and BUS 261 will substitute for BUS 250.

BUS 259 Taxes/Accounting 1(1-0)
Various accounting and record-keeping systems are explored as well as the current tax structures as applied to small businesses. This course taken in combination with two additional courses selected from BUS 258, BUS 260, and BUS 261 will substitute for BUS 250.

BUS 260 Management 1(1-0)
Current supervisory, leadership, and time study management theories are studied as applied to small businesses. This course taken in combination with two additional courses selected from BUS 258, BUS 259, and BUS 261 will substitute for BUS 250.
BUS 261 Marketing 1(1-0)
Exploration of product, promotion, pricing, and distribution strategies with concentration on the social, economic, competitive, and legal business environments. This course taken in combination with two additional courses selected from BUS 258, BUS 259, and BUS 260 will substitute for BUS 250.

BUS 265 Hospitality Leadership 3(3-0)
This course will focus on management and personnel functions as they relate to the hospitality industry. Managerial skills will be addressed relevant to successful performance in restaurants, hotels, clubs, resorts and many other hospitality organizations. Emphasis will be on the function of the leader that develops people so that the institution will adapt, prosper and grow.

BUS 291 Business Internship 3(1-10)
Students will work in part-time jobs directly related to their degree programs. Training sessions are held with the employer, instructor, and student. The internship will be limited to students within one semester of graduation and will be used as a capstone course for Management & Marketing, Hospitality Management, and Small Business Management majors only. Prerequisite: Permission of the Internship Coordinator

BUS 292 Internship 6(0-15)
Continuation of BUS 291. Prerequisite: Permission of the Internship Coordinator

BUS 293-298 Current Topics in Business 1-3(1 to 3-0)
Courses designed to investigate various topics in Business not included in current courses. Topics will be announced.

CHM 100 Fire Science Chemistry 3(3-0)
This course is designed specifically for those students on the Fire Science curriculum. The course includes the principles of basic chemistry and their application to the combustion process of fire.

CHM 105 Introductory Chemistry (F,W,SU) 4(3-2)
An elementary study of general chemistry. No previous chemistry background is necessary. The course deals with basic chemical principles and their application to inorganic chemistry. Designed for majors in liberal arts, business, pre-nursing, and to prepare students for CHM 106 or CHM 111. Two hours per week of lab work are included. Corequisite: MAT 104 or equivalent

CHM 106 Organic & Biochemistry for Allied Health 4(3-2)
Building on a background of basic inorganic chemistry, this course is intended to serve the needs of students in the ADN program and other allied health areas. The course includes an introduction into organic compounds, carbohydrates, fats, proteins, vitamins, hormones, enzymes, nucleic acids, and the energy relationships in metabolic processes. Two hours per week of lab work are included. Prerequisite: Proven competency in basic chemistry through a placement test or CHM 105 or equivalent

CHM 111 General College Chemistry I (F) 4(3-2)
Fundamental concepts, theories, laws, and definitions as they apply to modern chemistry. Practice in solving problems and balancing oxidation-reduction equations. Two hours per week of lab work are included. Prerequisites: One year high school chemistry or CHM 105 or equivalent; two years of high school algebra or MAT 105 (may be concurrent) or equivalent

CHM 112 General College Chemistry II (W) 4(3-2)
Continuation of CHM 111. A study of chemical equilibrium, electro chemistry, non-metals, metals, organic compounds and processes. Laboratory work includes qualitative analysis. Prerequisite: CHM 111

CHM 201 Quantitative Analysis 5(3-4)
Basic principles and methods of gravimetric, volumetric, and electrolytic analysis including solving a series of unknowns. Prerequisite: CHM 112

CHM 241 Organic Chemistry I (F) 5(4-3)
This course includes the study of the nomenclature, physical and spectral properties, structure, stereochemistry, and reactions (with their mechanisms) of saturated and unsaturated aliphatic and aromatic hydrocarbons, halide, alcohols, ethers, and carboxylic acids. Prerequisite: CHM 112

CHM 242 Organic Chemistry II (W) 5(4-3)
This course includes the study of the nomenclature, physical and spectral properties, structure, stereochemistry, and reactions (with their mechanisms) of carboxylic acid derivatives, aldehydes, ketones, phenols, amines, alcohols, nucleic acids (proteins), lipids, carbohydrates, nucleic acids, and heterocyclic compounds. Prerequisite: CHM 241

CHM 290-299 Selected Topics 1-5(1 to 4-0 to 3)
Courses designed to investigate various topics in Chemistry not included in current courses. Topics will be announced.
CIS 100 Introduction to Information Processing Systems (F,W,SU) 3(3-1.5)
This course is designed to introduce students from a variety of curriculums and educational backgrounds to computers and information processing systems. CIS 100 will emphasize how the computer is used as a conceptual basis for problem solving and the role each hardware and software component plays in the computer process. In addition, this course will introduce students to some of the most widely used programs—word processing, spreadsheets, graphics, databases and the disk operating system. In addition to classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: Touch keyboarding skills recommended

CIS 110 Computer Programming I
(Visual Basic) (F) 3(3-1.5)
A beginning level programming course using Object Oriented Programming. The student will learn programming techniques using a Windows based programming language in a graphical environment. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: MAT 104 or equivalent

CIS 111 Computer Programming II
(Visual Basic) (W) 3(3-1.5)
A continuation of CIS 110 in developing Object Oriented Languages concepts. The major project of the course is to develop a professional Windows application. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: CIS 110

CIS 130 Applications With Microcomputers (F,W,SU) 3(3-1.5)
A study of various computer applications as applied to business problems. Applications covered include spreadsheets, windows presentation programs, and databases. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: CIS 100 with “C” or better

CIS 190 Cisco Internetworking I 4(4-1.5)
This course is the first in a series of four in the Cisco Networking Academy Program designed to teach students to design, build and maintain computer networks. Fundamentals of computer networks are the primary focus in this course. In addition to classroom work, each student is expected to complete a minimum of 1 1/2 hours of individual work per week.
Prerequisite: CIS 100, MAT 104

CIS 195 Cisco Internetworking II 4(4-1.5)
This course is the second in a series of four in the Cisco Networking Academy Program designed to teach students to design, build and maintain computer networks. Fundamentals of the Cisco IOS (Internetwork Operating System) software and routers are the primary focus in this course. In addition to classroom work, each student is expected to complete a minimum of 1 1/2 hours of individual work per week.
Prerequisite: CIS 190

CIS 202 Web HTML 3(3-1.5)
This course is the first level in obtaining Webmaster certification, and is designed to help individuals and businesses develop the skills they need to meet today's rapidly growing demand for Web and Internet communication practitioners. Little or no previous technology expertise is required, though familiarity with the operation of a personal computer is necessary. Included is web content development, multimedia and interactive web elements, advanced web content, and Java scripting. In addition to the in-class work and demonstrations, the student is required to do a minimum of 1 1/2 hours of individual laboratory work per week. Some of the lab work must be done on either MMCC campus.
Prerequisite: CIS 100

CIS 203 Web Security and Maintenance 3(3-1.5)
This course is designed to introduce students from a variety of curriculums and educational backgrounds to web security and maintenance. CIS 203 is the second level in obtaining the Webmaster certification, and is designed to help individuals and businesses develop the skills they need to meet today's rapidly growing demand for Web and Internet communication practitioners. Little or no previous technology expertise is required, though familiarity with the operation of a personal computer is necessary and.html programming is recommended. In addition to the in-class work and demonstrations, the student is required to do a minimum of 1 1/2 hours of individual laboratory work per week, some must be done at MMCC.
Prerequisite: CIS 100

CIS 210 Desktop Publishing (PageMaker) (W) 3(3-1.5)
This course is designed to introduce the student to computerized desktop publishing on a microcomputer. Desktop publishing terms are identified. This course will allow a student to design master page and multi-page publications. Students will use fonts and different typefaces. Page layout, text, and graphics will be incorporated into publications. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: CIS 100

CIS 230 Special Topics (F) 1-3(1 to 3-0)
Courses designed to investigate relevant computer information systems. Topics covered are not included in the courses that are currently listed and will be announced prior to the semester in which they are offered.
Prerequisite: CIS 100
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<td>CIS 270</td>
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<td>CIS 272</td>
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<td>Co-op (Computer Info Systems) (W)</td>
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CIS 245 Computer Setup and Repair (F) 4(4-2)

A hardware service course designed to prepare students for the A+ Certification Examination. Students will learn the fundamentals of computer hardware setup and repair. The student will study and apply troubleshooting techniques and hardware installation methods. In addition to the classroom work, each student is required to do a minimum of two hours of individual laboratory work per week.

Prerequisite: CIS 100

CIS 255 Computer Operating Systems (Windows XP) (W) 3(3-1.5)

A detailed study of the Windows 98 operating system. Windows terms, commands, installation and optimizing techniques will be covered. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 100

CIS 256 Microsoft Windows 2000 Pro (W) 3(3-1.5)

This course provides students with the knowledge and skills necessary to install, configure, customize, and troubleshoot Microsoft Windows 2000 a single-domain Microsoft Windows 2000-based network. In addition, students learn how to integrate Windows 2000 and Novell NetWare networks. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 270

CIS 260 Systems Analysis (F) 3(3-1.5)

Introduces the student to the fundamental concepts of systems analysis and design. The role of the systems analyst and the training and skills required to function in this position are presented. Special emphasis is placed upon both written and oral communication skills. The life cycle concept and its application to business systems is discussed. Structured design techniques are emphasized. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 100

CIS 270 Networking Essentials (F) 3(3-1.5)

This course serves as a general introduction for students to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network, as well as the topologies and protocols for LANs. It covers LAN-user concepts and the basic functions of system administration and operation. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 110 or CIS 130

CIS 271 Microsoft Windows 2000 Server 3(3-1.5)

This course provides students with the knowledge and skills necessary to install, configure, customize, and troubleshoot Microsoft Windows 2000 Server with Microsoft Windows 2000-based network. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 270

CIS 272 Active Directory Services 3(3-1.5)

This course will introduce you to Microsoft Windows 2000 Active Directory and prepares the student to plan, configure, and administer Active Directory infrastructure. Students learn how to configure the Domain Name System (DNS) to manage name resolution, schema, and replication. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 256 or CIS 271

CIS 273 Implementing Windows 2000 Network 3(3-1.5)

This course is for support professionals who are new to Microsoft Windows 2000 and will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows 2000 Server production. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 271 and CIS 256

CIS 274 Microsoft Internet Information Server 3(3-1.5)

This course will introduce you to Microsoft Windows 2000 and the fundamentals of computer hardware setup and repair. The student will study and apply troubleshooting techniques and hardware installation methods. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

Prerequisite: CIS 271

CIS 280 Co-op (Computer Info Systems) (W) 3(1-10)

Co-op is a capstone course planned for the last semester of the Associate in Business: Computer Information Systems Degree. The students will be employed in an approved co-op position selected by the college coordinator and will also attend a weekly one hour classroom lecture/discussion. A waiver may be allowed for the work component only with equivalent previous/present work experience as determined by the coordinator. An individual evaluation is made by the coordinator only upon student request. Documentation by the employer will be required.

Prerequisite: The student must have completed at least 45 credit hours on the Associate in Business: Computer Information Systems Degree.
CIS 290 Cisco Internetworking III 4(4-1.5)
This course is the third in a series of four in the Cisco Networking Academy Program designed to teach students to design, build and maintain computer networks. The focus of this course is on configuring switches and routers; configuring IGRP, Access Lists and IPX on routers. In addition to classroom work, each student is expected to complete a minimum of 1 1/2 hours of individual work per week.
Prerequisite: CIS 190, CIS 195

CIS 295 Cisco Internetworking IV 4(4-1.5)
This course is the fourth in a series of four in the Cisco Networking Academy Program designed to teach students to design, build and maintain computer networks. The focus of this course is on Wide Area Networks, PPP, ISDN, Frame Relay and all CCNA Exam-related learning objectives. It is the final preparation for taking the Cisco Certified Networking Associate examination. In addition to classroom work, each student is expected to complete a minimum of 1 1/2 hours of individual work per week.
Prerequisite: CIS 190, CIS 195, CIS 290

CPS 150 Introduction to Java Programming 3(3-1.5)
This course is designed to introduce students to developing applications using the Java programming language, object-oriented programming concepts, along with the Java syntax needed to implement them. This course will also introduce students to Java’s role on the Internet. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: MAT 104 or equivalent

CPS 151 Advanced Java Programming 3(3-1.5)
This course is designed to advance student’s skills in developing applications using the Java programming language. Focusing on issues involved in designing and developing Java applications within an organization. This course will also allow students to develop Java applications for the Internet. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: CPS 150

CPS 175 Computer Programming I (F) 3(3-1.5)
This course covers algorithm design and development. An introduction to the design and development of computer programs using the C++ programming language is included. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: MAT 104 or equivalent

CPS 176 Computer Programming II (W) 3(3-1.5)
A continuation of CPS 175, with an emphasis on elementary data structures, string manipulation, recursion, stacks, queues, linked lists, binary trees, sorting, & searching. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: CPS 175

CPS 180 FORTRAN Programming (F) 3(3-1.5)
In this course students solve business, scientific, and mathematical problems using the FORTRAN programming language. Topics include computer terminology and concepts, problem-solving and program design techniques, arithmetic and logical operations, subscripted variables, subprograms, functions, and files. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: MAT 104 or equivalent

CPS 210 Introduction to Computer Systems 21001 3(3-3)
This course is designed to develop a more thorough understanding of the hardware-software interface. The student learns assembly language and the concepts of computer architecture and fundamental computer operations that are inherent in its use. Higher level data structure, control, and problem-solving concepts are thereby linked to an understanding of the internal operation of the computer. The structure of operating systems and the manner in which they manage the resources of the computer system are also presented. In addition to the classroom work, each student is required to do a minimum of three hours of individual laboratory work per week.
Prerequisite: Any CPS programming course

CONTRACTING WITH BUSINESS & INDUSTRY (CBI) 10(0-10)
Contracting With Business & Industry (CBI) is a two-semester training program. Students earn credit both in the classroom and at a training site. This program provides training using local business and industry sites as training laboratories. Students may acquire employment skills in specialized career areas and assess their interests and capabilities while learning from a professional business person.

CRIMINAL JUSTICE - Corrections
CRJ 200 Introduction to Corrections 3(3-0)
A study of the history, impact, and philosophy of community-based corrections services including sentencing alternatives and process, probation, parole, and imprisonment. Prisoner rights and offender profiles are also examined.
CRJ 201 Legal Issues in Corrections 3(3-0)
An introduction to the laws and procedures regarding federal and state constitutional rights, criminal case processing, court organization, and prisoner rights.

CRJ 210 Correctional Institutions 3(3-0)
A study of American prisons and jails including their purpose, treatment program availability, organizational structure, and custodial and security requirements. The effect on the incarcerated inmate as well as future correctional considerations are also examined.

CRJ 211 Client Growth and Development 3(3-0)
An examination of the psychological, social, and environmental causes of criminal behavior in juveniles and adults, the impact of psychological, sexual, medical, and substance abuse problems of offenders and intervention strategies used in institutional and community settings.

CRJ 221 Client Relations in Corrections 3(3-0)
An examination of the social and psychological formation of attitudes, their cultural influences, and their impact on minority perceptions. Discriminatory implications and professional responses in corrections are also considered.

CRJ 231 Local Detention 3(3-0)
This course is designed to prepare Correctional Officer Training students for employment at a local Corrections facility. This course will emphasize booking and intake, report writing, interpersonal communication and fingerprinting.
Prerequisites: CRJ 200, 201, 210, 211, 221

CRJ 241 PPCT Defensive Tactics 2(1-2)
This course is designed to meet MLEOTC requirements for defensive tactics. This course is also designed to prepare Correctional Officer Training students for employment at a local Corrections facility.
Prerequisites: CRJ 200, 201, 210, 211, 221
Corequisites: CRJ 231, 251

CRJ 250 Corrections Officer Training Internship 5(2-3)
The Corrections Officer Training Internship has been designed to provide the student a pragmatic work experience in a correctional institution/facility. The student intern will be required to complete a minimum of 60 hours at an operational corrections agency. The intern curriculum will include working in a variety of institutional departments and can be adjusted in accordance to the students needs and/or interests. Students must be recommended by one or more corrections instructors and successfully interview with a Corrections Department representative.

CRJ 251 Emergency Intervention Techniques 2(2-0)
This course will introduce students to four components in jail emergency situations including: suicide intervention, First Aid/CPR, fire fighting techniques, and stress management.
Prerequisites: CRJ 200, 201, 210, 211, 221
Corequisites: CRJ 231, CRJ 241

CRJ 290-299 Special Topics in Corrections 1-5(1 to 5-0)
Courses designed to investigate current topics in corrections not included in courses currently listed. Topics will be announced.

DRAFTING

DRF 101 Basic Mechanical Detail Drafting (F) 3(3-0)
Basic techniques of lettering, linework, geometric constructions, orthographic projection, dimensioning, auxiliary and section view development are explored. Laboratory assignments include producing "piece part" drawings utilizing industry standards.

DRF 102 Adv. Mechanical Detail Drafting (W) 4(3-3)
This course prepares the student to make working drawings of mechanical components and small assemblies. Emphasis is placed on dimensioning, views and projections, and manufacturing tolerances. Additional skills are developed in depicting threads, springs, fasteners, gears, and cams.
Prerequisite: DRF 101

DRF 105 Intro to Geometric Dimensioning & Tolerancing 2(2-0)
This course is designed to introduce the fundamentals of geometric dimensioning and tolerancing. Emphasis is placed on basic concepts of dimensioning and tolerancing a drawing with respect to the actual function or relationship of part features.
Prerequisite: DRF 101 or Instructor permission

DRF 120 Introduction to AutoCAD (F,W) 3(3-1.5)
This course is designed to acquaint students with computer assisted drafting using AutoCAD software. System usage, drafting commands, file management and use of peripherals will be introduced to students as they create mechanical detail drawings. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.

DRF 150 Blueprint Reading and Sketching 4(2-4)
This applied course in reading blueprints is especially designed for the welding trades. Students are required to read mechanical, detail, assembly, schematic, and welding drawings, and do sketches of a part with a variety of views.

DRF 201 Tool Design (F) 4(3-3)
Students use basic engineering principles to produce fundamental designs for gauges, tools, special jigs, fixtures and molds. Designs are produced both on the CAD system and the drafting board.
Prerequisites: DRF 102, DRF 120

DRF 210 Adv. Computer Assisted Drafting (W) 3(3-1.5)
Students interact with the CAD system database to create advanced mechanical drawings. Use of computer libraries, online resources, dimension styles, layers and drawing exchange formatting to create multiview, section, assembly, and 3d drawings are covered. In addition to the classroom work, each student is required to do a minimum of 1 1/2 hours of individual laboratory work per week.
Prerequisite: DRF 120
DRF 215 Mechanical Design (W) 4(3-3)
This course is designed to develop and improve designing and drafting skills obtained in previous courses. Basic design principles are used to create mechanical components including bushings, bearings, lubrication systems, gear linkages, and drive trains. The components designed are basic units of advanced designs. Incorporated in the course is the use of the CAD system.
Prerequisite: DRF 201

DRF 221 Descriptive Geometry (F) 3(3-0)
This course is designed to develop problem-solving skills in the layout of complex drawing problems. The course consists of the study of spatial relationships of lines, planes, and solids. Students use the CAD system to create solutions to some problems.
Prerequisites: DRF 102, DRF 120

DRF 230 CAD Applications (W) 3(3-0)
This course is designed to develop and improve the student’s knowledge and experience in computer assisted drafting.
Prerequisite: DRF 201

DRF 250 Co-op (Drafting & Design Technology) 3(1-10)
Co-op is a capstone course planned for the last semester of the Associate in Applied Science: Drafting & Design Technology Degree. The students will be employed in an approved co-op position selected by the college coordinator and will also attend a weekly one hour classroom lecture/discussion. A waiver may be allowed for the co-op experience as determined by the co-op coordinator.
Prerequisite: The student must have approval of the co-op coordinator to be placed in a co-op situation.
Corequisite: DRF 215

DRF 295-299 Special Topics in Drafting & Design Technology 1-3(1 to 3-0)
These courses are designed to investigate various topics in Drafting and Design Technology that are not included in current courses. Topics will be announced. These courses are offered based on demand.

ECE 101 Introduction to Early Childhood Education 4(4-0)
This course is designed to assist the student to understand the role of the child care provider or teacher, as well as become familiar with early childhood settings, developmental milestones and developmental theories. The course will consist of lecture and field visits to child care settings or schools. This course teaches the student how to become (CDA) certified.
Prerequisite: Current Cardiopulmonary Resuscitation (CPR) certification.

ECE 112 Infancy 4(3-2)
This course explores prenatal development and the effect on the family. Also studied is normal human development of infants from birth through 2.5 years.
Corequisite: ECE 101

ECE 113 Early Childhood 4(3-2)
This course explores the principles of growth and development of children ages 3-8 years.
Prerequisite: ECE 101

ECE 114 Interacting w/ Children, Parent/Adult/Child Relations 4(3-2)
This course will explore the theoretical perspective for interaction, and the influence of significant adults, especially parents, in the lives of children birth through age eight. It will allow the student to observe and engage in planned interactive sessions with children.
Prerequisite: ECE 101

ECE 150 Preparation for Child Development Associate Credential (CDA) 2(2-0)
This course is designed to prepare the student for assessment by the Council for Early Childhood Professional Recognition to earn the Child Development Associate Credential. The student will be guided through the preparation of a resource file, distribution of parent questionnaires, writing of statements of competence, and review of typical test questions and interview practice sessions.
Prerequisites: Be employed in a licensed or registered child care setting, or be a regular volunteer in such a program able to accumulate 480 hours working with young children. (This requirement for the CDA must be accomplished in the nine months prior to sending an application for assessment.)
Have accumulated 70 clock hours of early childhood training, either through high school vocational classes, college courses, or in-service training with an early childhood agency. Be able to document these training hours by transcript, certificates or other acceptable means. All hours must have been accumulated within the past four years.

ECE 201 The Learning Environment 3(2-2)
All aspects of early childhood settings will be explored, including physical arrangement, curriculum development, positive atmosphere, and age and interest groupings. Students will be encouraged to use several lab settings.
Prerequisite: ECE 101 & Level I General Education

ECE 202 Creative Development of the Child 3(2-2)
This course will focus on the creative development of children. Students will learn how children become creative thinkers, and how to encourage creativity in young children. Activities will be developed for use in the lab setting that encourage creativity in movement, art, drama and music.
Prerequisite: ECE 101, or permission of the Instructor & Level I General Education
ECE 206 Parent, School and Community 3(2-2)
This course will explore the important relationship between the early childhood program and the families involved, as well as taking a look at the school and community resources available to programs and families.
Prerequisite: ECE 101, or permission of the Instructor & Level I General Education

ECE 207 Early Childhood Education Practicum 4(1-6)
This course takes the student into selected child care settings where they will prepare activities and give care to children in an appropriate setting, using theories and techniques learned and observed in prerequisite courses. It includes time with peers and instructor to evaluate and discuss the field experiences.
Prerequisites: ECE 101, 112, 113, 114, 201, 202, and 206 & Level I General Education

ECE 208 Program Management 4(4-0)
This course is designed to give students knowledge of the “administration” of early childhood programs. Topics include: record keeping, the hiring and training of staff, child advocacy, using community resources, collaboration, public relations, advertising and fund raising.
Prerequisite: ECE 101, or permission of the Instructor

ECONOMICS

ECO 110 Economics and Society 3(3-0)
An examination of the development of economic thought and institutions with emphasis on the application of this knowledge to the understanding of today’s world.

ECO 150 Economic Problems 2(2-0)
Course content changes dependent upon current pressing economic problems. The topic will be announced prior to the semester in which it is offered.

ECO 175 Personal Finance (F, W) 2(0-2)
This Individualized Learning Center course uses a variety of materials, including computer-assisted instruction, to help students learn to make wise financial decisions in choosing, spending, and conserving resources, goods, and services. The main areas covered are resource management, money management, and principles of wise consumption.

ECO 201 Principles of Economics (Macroeconomics) (F) 3(3-0)
Examines major subdivisions of the American economy. Some of the specific areas studied are national income theory, money and banking, the business cycle, economic growth, and international trade.

ECO 202 Principles of Economics (Microeconomics) (W) 3(3-0)
This course is designed to introduce the basic terms and concepts of economics. The economic behavior of specific economic units such as households and business firms is examined. Some principle topics are postulates of economics, supply and demand concepts, and price determination by various types of businesses.

ECO 290-299 Selected Topics 1-3(1 to 3-0)
These courses are designed to investigate various topics in Economics that are not included in current courses. Topics will be announced.

ELEMENTARY EDUCATION

ELE 107 Introduction to Teaching 3(3-0)
Introduction to teaching as a career. Survey of students’ behavior and effective teacher responsibilities preparatory to guided observation and participation in K-12 settings.

EMERGENCY MEDICAL SERVICES

EMT 100 Basic Emergency Medical Technician 9(8-7)
This course provides the minimum certification to treat patients in an EMS setting. The training teaches basic anatomy and physiology, emergency care in a variety of situations, patient interactions and field work procedures. The class includes lecture and hands-on practice for field work and state testing. Upon showing competency, students begin shift rotations at hospital emergency rooms and on ambulances. Students work under the direction of hospital staff and experienced paramedics. When training is completed, students are eligible to take the state licensing exam.
Prerequisites: Age 18 or older; valid driver’s license; no felony convictions; high school diploma or GED. TB test & HBV vaccination required before clinical rotations begin.

EMS 200 Paramedic I (F) 15(9-6)
This course is part of the Paramedic Program Associate Degree curriculum. It includes the following content areas: the roles and responsibilities of a Paramedic, medical legal issues, assessment and management of emergency patients, pharmacology, effective communication with patients, integrating pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the diverse patients, safe management of emergencies. A clinical component is included.
Prerequisites: Age 18 or older; valid driver’s license; no felony convictions; high school diploma or GED. TB test & HBV vaccination required before clinical rotations begin. EMT training is required; ALH 100, BIO 141, BIO 142
EMS 220 Paramedic II (W) 14(10-4)
This course is part of the Paramedic Program Associate Degree curriculum. It includes the following: assessment and management of emergency patients, administration of medications, pharmacology, cardiology, central nervous system, integrating pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the diverse patients, safe management of emergencies. A clinical component is included.
Prerequisites: Age 18 or older; valid driver's license; no felony convictions; high school diploma or GED. TB test and HBV vaccination required before clinical rotations begin.
EMS 200 or equivalent

ENG 057 College Reading (F,W) 1-3(0-2 to 6)
This Academic Support Center (ASC) course is designed to enable students to improve their college reading skills. Specific areas to be improved are determined through diagnostic testing, and an individualized reading program is developed by the instructor to meet each student's needs. Students then work under instructor supervision on a variety of materials, including multimedia, available in the ASC. Success in the course is determined by testing as well as by completion of the student's individualized reading program goals.

ENG 058 College Reading II 3(3-0)
This course is designed to enable students who are presently reading at high school level or above to increase their vocabulary, raise their comprehension level and develop their critical thinking skills. The focus of the course is on college textbook reading.

ENG 067 Basic English (F,W) 2(0-4)
This Academic Support Center course provides a review of basic English grammar, punctuation, word use, sentence structure, and writing mechanics. The emphasis is on the writing and revising processes students will use as they develop coherent sentences and college level paragraphs and essays.

Writing Placement: MMCC tests its new students to insure proper placement in the sequence of writing courses leading to completion of the General Education writing requirement. Each course is designed to serve a different student population and to maximize the potential for student success. We strongly recommend students follow the placement suggested, and that they consult a counselor or English faculty member if they have questions.

Writing Sequence: ENG 067, ENG 101, ENG 110, ENG 111 (pending placement test recommendation)

ENG 101 Writing Development (F,W) 3(3-0)
This course is designed to help a student think and communicate through writing. In this course the student will learn to use writing and speaking patterns common to college and the workplace. It is not a "drill and practice" course in grammar. This course will emphasize the student's own voice and will bridge the gap between the student's speech community and the expectations for writing in college. The course will stress continual production of prolific, fluent writing and editing.

ENG 110 Intro to Academic Writing (F,W) 3(3-0)
This course is designed to provide incoming students a more gradual and more thorough introduction to the textual practices required in college. This course will focus on how to read, annotate, and respond to academic texts, and will also introduce students to writing strategies designed to make them successful academic writers. This course is meant to serve as a companion course to ENG 111 and will utilize the same goals and outcomes. Students who perform at a high level in 110 may submit portfolio materials at the end of 110.

ENG 111 Freshman English Composition (F,W,SU) 3(3-0)
A study of English usage, current prose, and basic English skills in composition. The objective is to develop writing ability and techniques of research which allow students to express themselves clearly, logically, and forcefully. A formal research paper may be required of students at the instructor's option. Students must complete stated assessment requirements in order to pass the course.
Prerequisite: Competency or a grade of "C" or better in ENG 101 or equivalent.

ENG 111B Portfolio Tutorial (F,W) 1(1-0)
ENG 111B is a one hour tutorial for students who failed their English 111 portfolio but who otherwise would have been eligible for a grade of “C” or better in ENG 111. The tutorial will combine individual conferences, group work, and classroom activities to prepare the student to resubmit their portfolio.
Prerequisites: A copy of the 111 portfolio and instructor referral are required.

ENG 112 Introduction to Literature (F,W) 3(3-0)
A continuation of ENG 111 with emphasis on an introduction to literature. A formal research paper may be required of students at instructor's option.
Prerequisite: ENG 111

ENG 201 English Literature I (F) 3(3-0)
A survey of works of major authors of English literature from Beowulf through the 18th century.
Prerequisite: ENG 111
ENG 202 English Literature II (W)  3(3-0)
A continuation of ENG 201 from the late 18th century poets through the writers of the present.
Prerequisite: ENG 111

ENG 205 American Literature to 1870  3(3-0)
A study of our nation’s authors and literature from colonial times through the Civil War period.
Prerequisite: ENG 111

ENG 206 American Literature from 1870  3(3-0)
A continuation of ENG 205 from the Reconstruction through mid-20th century works.
Prerequisite: ENG 111

ENG 211 Masterpieces of Western Literature I  3(3-0)
An in-depth study of selected major classical literary works of Western civilization.

ENG 212 Masterpieces of Western Literature II  3(3-0)
A comprehensive study of leading authors from the time of the Renaissance through the 19th century.

ENG 213 Contemporary Literature (W)  3(3-0)
Readings in the novel, short story, essay, autobiography, biography, poetry, and drama of the mid-20th century.
Prerequisite: ENG 111

ENG 222 Expository Writing and Research (F,W)  3(3-0)
This course is designed to further develop skills in all phases of the nonfiction writing process with special emphasis on academic writing situations, argumentation, and library research. Writing is approached both as a way of learning and as a form of social behavior that varies according to conventions of aim, audience, and form. Instruction and assignments are partially individualized according to students’ educational goals.
Prerequisite: Grade of “C” or better in ENG 111

ENG 225 Creative Writing  3(3-0)
Introduction to the essentials of narration, characterization, and other components of creative writing. Students are required to submit original poetry and/or one-act plays or short stories.

ENG 281 Children’s Literature  3(3-0)
A review of the rich and diverse field of literature for children from preschool to adolescence. Recommended for students in the elementary teacher education curriculum.

ENG 290-299 Selected Topics  1-3(1 to 3-0)
These courses are designed to investigate various topics in English that are not included in current courses. Topics will be announced.

ENVIRONMENTAL SCIENCE

ENV 210 Environmental Science (W)  4(3-2)
A survey of the broad field of environmental science. Major topics included are: the scientific method, an introduction to chemistry, ecological principles, types of pollutants, energy principles, population issues, the environmental impact of human choices, and the role of economics, risk perception, and political choices in environmental decision making. Laboratory activities will expose students to a variety of field, survey and laboratory techniques useful in assessing environmental quality.
Prerequisite: Recommend BIO 101, GEL 101 or other science courses.

ENV 220 Environmental Regulations (F)  3(3-0)
A comprehensive course in environmental law and regulations, agencies such as OSHA, DOT and EPA, and how they affect environmental usage and the individual. The course includes an overview of the history, philosophy and processes germane to environmental regulations and how to work effectively as a team member to address environmental issues and regulatory compliance concerns.

ENV 230 Environmental Training (W)  5(3-4)
Basic measurement techniques used by environmental scientists and technologists to evaluate air and water quality, field methods, continuous monitoring techniques, and in-laboratory analysis techniques. Course includes how to properly collect and prepare samples for analysis, use a variety of instruments effectively, and how to appreciate the importance of proper sample custody and record keeping. Course also includes 40 hour personal protection and safety training.
Prerequisites: ENV 220, CHM 112

ENV 290 Environmental Internship (W)  4-6(1-15 to 25)
This course is the “capstone” field experience for students in the environmental science or environmental technology curriculums. This required course provides each student with opportunities to synthesize and integrate knowledge gained from their academic program through a process of “real world” experience, problem solving and on-the-job training. This course will allow for a broad range of learning/working experiences for students and relationships with many organizations, including other college and university units, governmental agencies, profit and nonprofit enterprises and professional organizations.
Prerequisite: ENV 230

ENV 291-299 Selected Topics  1-5(1 to 4-0 to 3)
These courses are designed to investigate various topics in Environmental Science that are not included in current courses. Topics will be announced.
### FIRE FIGHTER TRAINING

**FFT 101 Fire Fighter I Training** 8(8-0)
This course is offered as basic training in cooperation with the Michigan Fire Training Council. The course covers information on Michigan fire laws, portable extinguishers, fire hose, fire apparatus, fire service, first aid, ladders, fire service, ropes, fire stream, forcible entry, ventilation, salvage and overhaul, rescue, and utilities. In addition, the course covers inspection practices, automatic sprinkler systems, fire departmentumper operations, ladders, rescue operations, salvage activities, communications and hazard materials awareness level.

**FFT 102 Fire Fighter II Training** 8(8-0)
This course is offered in cooperation with the Michigan Fire Training Council. Topics covered include: rules and regulations, hose practice, fire apparatus, ladder practice, fire science, water supplies, forcible entry, sprinkler systems, first aid, utilities, inspection laws, portable fire extinguishers, building construction, advance rescue activities, hazard materials operation level, incident command and community relations.

**FFT 105 Fire Fighter Training III A** 4(4-0)
This course is offered in cooperation with the Michigan Fire Training Council. The course covers Michigan fire laws, communication and supervisory skills, instructional responsibility, strategy and tactics, fire and arson investigation. Students may be allowed only one absence.

**FFT 236 Arson Investigation** 3(3-0)
This course presents the fundamentals of arson investigation. It concerns itself with all types of fires and the techniques of determining if they are accidental or incendiary in nature. Emphasis is placed upon investigation and preservation of evidence.

### GERMAN

**GER 101 Elementary German** 3(3-0)
This is an elementary course designed for students who have had little or no previous experience in German. It is designed to help students acquire foundational language skills necessary for basic communication in German. The majority of class time will focus on verbal communication, however, reading and writing will be frequently integrated, & selected cultural information will be studied.

### GEOLOGY

**GEL 112 Historical Geology** 3(2-2)
A chronological study of the origin and development of the earth’s features, along with development and succession of plant and animal groups as revealed in rock formations and mineral deposits.

**GEL 101 Physical Geology** 4(3-2)
An introductory study of the processes that shape our world. Topics include minerals, rocks, volcanism, earthquakes, continental drift, erosion and deposition, the ice age, and economic significance of geology to humankind.

**GEL 112 Historical Geology** 3(2-2)
A chronological study of the origin and development of the earth’s features, along with development and succession of plant and animal groups as revealed in rock formations and mineral deposits.

### HEALTH EDUCATION

**HED 115 Stress Management** 2(2-0)
This course is designed to give the student an overall knowledge and understanding of the mechanisms of stress as a concept, to provide stress management tools to increase coping, and to provide health/wellness promotion.

**HED 130 Introduction to Aromatherapy** 1(1-0)
This course is designed to be an introduction to the field of Aromatherapy. Students will learn to understand the proper usage of essential oils. Upon completion of this course, students will be qualified to apply and diffuse the top twenty oils used in aromatherapy.

**HED 132 Introduction to Reflexology** 1(1-0)
This course is designed to be an introduction to the field of Reflexology. Students will learn the proper techniques for performing reflexology as a stress-reducing therapy. Students will be qualified to teach an introductory 1 hour class on the therapy of reflexology, and be able to perform a half-hour therapy for the purposes of improving circulation, enhancing immunity, and reducing stress.

**HED 134 Introduction to Herbology** 1(1-0)
This course is designed to be an introduction to the field of Herbology. Students will learn to understand the proper usage of herbal remedies. Upon completion of this course, students will be able to recognize the most commonly used herbs, as well as how and when they should be taken. Additionally, they will be able to educate others about the proper use of herbs.

**HED 136 Introduction to Massage** 1(1-0)
This course is designed to be an introduction to the field of Massage Therapy. Students will learn how to perform basic massage techniques as well as learn about the professionalism of massage as a therapy. Students will be qualified to perform a one-hour relaxation massage for family and friends.
HED 151 Personal Health and Hygiene 3(3-0)
Intended to develop habits, skills, and attitudes favorable to healthful living and to understand better the normal functioning of the human body. This course encourages understanding of mental, physical, and social well-being of the individual and the community.

HED 290-299 Selected Topics in Health 1-5(1 to 5-0)
These courses are designed to investigate various topics in Health Education that are not included in current courses. Topics will be announced.

HEATING / REFRIGERATION / AIR CONDITIONING

HRA 102 Refrigeration Fundamentals (F) 3(2-2)
As an introductory course to the field of refrigeration service, instruction is given in the handling of refrigerants, application, identification, reclaiming and refrigerant alternatives. Particular attention is paid to the principles, construction, and operation of refrigerating systems. Theory underlying refrigeration principles is covered. Laboratory experience includes cutting, soldering, swaging, and flaring of copper tubing, the evacuation and recharge of refrigeration systems, electrical troubleshooting for basic systems, the diagnosis and repair of the refrigeration system, and testing equipment typically used in the field of refrigeration service.

HRA 104 Residential Refrigeration (W) 3(2-2)
This course studies residential refrigeration systems, to include domestic refrigeration and air conditioning. Included in the instruction are ice makers, defrost controls, diagnostic display panels and typical appliance system problems. Particular attention is paid to the principles, construction, and operation of these systems. Laboratory experience includes residential system electrical troubleshooting and repair, and the diagnosis and repair of the refrigeration system.
Prerequisite: HRA 102

HRA 105 Hydronics 3(2-2)
An introduction of the concepts involving fluid system heating devices. Topics will cover: hot water and steam heating units, terminal units, control devices, piping, and diagnosis of hydronic systems.
Prerequisite: HRA 106

HRA 106 Heating Fundamentals (F) 3(2-2)
An introductory course into the fundamentals of heating systems and installation practices. Laboratory experience includes furnace installation, steel and copper piping, furnace and control wiring, and flue gas venting.

HRA 108 Heating Systems (W) 3(2-2)
Residential and commercial forced air and hydronic heating systems are covered in this course. The instruction includes the fundamental operation of gas and oil burners, for both standard and high efficiency systems. In addition, system configuration and operation principles are studied for fossil fuel systems and solid fuel burners. Laboratory experiences include the trouble shooting and repair of spark ignition control systems, relay control safeties, hot surface ignition, flue dampers, and efficiency testing of heating systems.
Prerequisites: HRA 106, HRA 116

HRA 115 Plumbing 4(4-0)
This course covers the design, use, and application of potable and non-potable water systems as they apply to both water supply and waste problems. Students are involved with the practical applications of plumbing systems in a simulated environment like that found in the field.

HRA 117 Plumbing (W) 3(2-2)
This course covers the design, use, and application of potable and non-potable water systems as they apply to both water supply and waste problems. Students are involved with the practical applications of plumbing systems in a simulated environment like that found in the field.

Prerequisite: HRA 115
HRA 116 Fundamentals of Electricity 3(2-2)
This course covers the principles of electrical wiring for heating, refrigeration, air conditioning and manufacturing automation. Studies of frequency, phase, resonance and reactance, along with basic resistance, capacitance, inductance, voltage, and power which govern the fundamentals of all circuits will be explored. Laboratory work will be used to develop skill in analysis, troubleshooting of basic electronic circuitry, and use of test instruments.

HRA 175 Solar Heating System 3(2-2)
This course involves the study of various systems utilized to convert solar energy to domestic and commercial heating applications. Design characteristics, efficiency, and cost of various systems are reviewed. Students engage in the design and construction of an operational solar heating system as a part of the course requirements.

HRA 204 Light Commercial Refrigeration 3(2-2)
This course deals with more complex refrigeration systems associated with supermarkets and restaurants. Instruction and laboratory work are geared toward the installation and service of all types of light commercial refrigeration equipment such as walk-ins, reach-ins, water chillers, air cooled condensers, and water cooled condensers with cooling towers. Some of the other topics covered include heat controls for both single and three-phase systems.
Prerequisite: HRA 102

HRA 205 Motors & Controls 2(1-2)
This course in electricity concerns itself with the operation of electric motor-driven systems and devices. Classroom and laboratory experiences will include testing, troubleshooting, and repair of electric motor control systems. Electric motor-driven devices applicable to many different fields are covered, such as heating and air conditioning, machine tool and other electric-driven mechanical devices.
Prerequisite: HRA 116

HRA 215 HRA Controls 3(2-2)
A course designed to provide theory of operation, installation, and design of programmable, electric, and pneumatic controls for heating, refrigeration, and air conditioning systems. Laboratory work includes the installation, wiring, and troubleshooting of these control systems.
Prerequisite: HRA 116

HRA 220 Commercial Refrigeration Design 2(2-0)
Calculations in the sizing and design of refrigeration systems are covered in this course, as well as equipment layout and bid preparation. Topics include: “U” values, “R” values, insulation types and their installation, vapor barriers, construction details, and numerous charts, graphs, formulas, and other design material.
Corequisite: HRA 204

HRA 223 Residential HVAC Load Determination 3(3-0)
A course designed to calculate the winter heat loss; summer heat gain, and the cost of operation for a residential heating and/or air conditioning system. Manual J methods and computer software programs are used.
Prerequisites: HRA 108, MAT 104

HRA 225 Residential HVAC Distribution 3(3-0)
Calculations in the sizing, location, and design of forced air ducts and hydronic residential heating and air conditioning systems. Manual D methods and computer software programs are used.
Corequisite: HRA 223

HRA 240 Advanced Commercial Refrigeration 3(2-2)
This course deals with complex exotic refrigeration systems such as: environmental test chambers, supermarket refrigeration equipment, commercial ice-making equipment and ground source heat pump systems. Also included are various applied control systems and components.
Prerequisites: HRA 104, HRA 116, HRA 204

HRA 282 Insulating Systems 2(2-0)
A study of the various types of insulations currently being used in residential and commercial buildings. Also studied are the methods of installation of the various insulations as well as a comparative study of the costs of insulation, advantages and disadvantages of various insulations, and financing plans available for home and business. A course for anyone interested in energy conservation. This course cannot be used as a substitute for any course on the Heating, Refrigeration & Air Conditioning program.

HRA 283 Independent Study in HRA 3(3-0)
This course is for those students who desire to gain supervised experience in actual on-site situations to enhance their knowledge and experience in the heating, refrigeration, and air conditioning industry.
HRA 285 Co-op - Heating/Refrigeration/Air Cond 3(1-10)
HRA Co-op is a course intended to be completed after the student has attained at least 30 credit hours of instruction including prerequisites. The students will be employed in an approved co-op position selected by the college coordinator and will also attend a weekly one hour classroom lecture/discussion. A waiver may be allowed for the work component only with equivalent previous/present work experience as determined by the co-op coordinator. An individual evaluation is made by the coordinator only upon student request. Documentation of the experience will be required.
Prerequisites: HRA 102, HRA 106, HRA 116
Corequisites: HRA 104, HRA 108, HRA 205

HRA 295-299 Special Topics in Heating, Ref. & Air Conditioning 1-3(1 to 3-0)
These courses are designed to investigate various topics in Heating, Refrigeration & Air Conditioning that are not included in current courses. Topics will be announced. These courses are offered based on demand.

HIS 101 Issues in Western Civilization I (F) 3(3-0)
A survey of the development of Western peoples from ancient times through 1650 A.D. Emphasis is placed upon topics relating to the intellectual, social, religious, political, and economic development of Western peoples.

HIS 102 Issues in Western Civilization II (W) 3(3-0)
This is the second semester continuation of HIS 101. The course emphasizes the development of Western peoples from 1650 to the present. Principal topics examined are the political, intellectual, social, religious, and economic developments, and their impact upon world civilizations.

HIS 211 History of the United States I (F) 3(3-0)
This course examines the developments from exploration of the Americas through reconstruction. Primary topics of study are exploration, colonization and its characteristics, the American Revolution, the Constitution, democratic developments, rise of sectionism, the Civil War, and reconstruction.

HIS 212 History of the United States II (W) 3(3-0)
Continuation of HIS 211. This course covers events from the post-reconstruction period to the present. Principle areas of study are economic growth, political activities, diplomacy, and social and intellectual developments.

HIS 223 History of Michigan 3(3-0)
This course examines developments in Michigan from the time of earliest human habitation to the present. Major areas examined are French and British rule and rivalry, Michigan’s move to statehood, exploitation of natural resources, and political and social development of the 19th and 20th centuries.

HIS 251 American Studies I: The Cultural Foundations of the 20th Century 3(3-0)
Along with HIS 252, this two-semester sequence centers on American cultural myths and values, examining their origins, development, and current manifestations (e.g., ideas of equality, the frontier, competition, pursuit of happiness, liberty, destiny, etc.). The approach is historical, using materials from literature, popular culture, and historical studies. This course centers on discussion stemming from assigned readings for which the instructor sets the cultural and historical context. Students desiring humanities credit should register for HUM 251.

HIS 252 American Studies II: Old Myths, New Realities in the 20th Century 3(3-0)
Continuation of HIS 251. Students desiring humanities credit should register for HUM 252.

HIS 290-299 Selected Topics 1-3(1 to 3-0)
Courses designed to investigate various topics in History not included in current courses. Topics will be announced.
HUMANITIES

HUM 101 World of Creativity I (F) 3(3-0)
An introduction and exposure to the creative arts. Together, HUM 101 and HUM 102 are designed to give the student a basic understanding of the terminology and concepts of the visual arts, theatre, dance, and music. Ideas and philosophies of specific periods are presented as a frame of reference for discussion. Speakers, films, and field trips are arranged to give the student a more distinct involvement with the arts. HUM 101 is taught chronologically and focuses on the Greek and Roman period through the Renaissance.

HUM 102 World of Creativity II (W) 3(3-0)
Continuation of HUM 101, HUM 102 begins with the baroque period and ends with the current time.

HUM 105 Awareness of Fine Arts/Science/Society 1(1-0)
An interdisciplinary study designed to develop the student’s awareness of the interrelationships of the artistic, scientific, and technological aspects of our society, and to investigate their impact upon contemporary society from a variety of perspectives. Various methods of instruction may be used for this course including independent readings or research, lecture and discussion, projects associated with a field trip, or travel of recognized educational value.

HUM 106 Awareness of Fine Arts/Science/Society 1(1-0)
A continuation of HUM 105. A student may not receive credit in the same course more than once.

HUM 107 Awareness of Fine Arts/Science/Society 1(1-0)
A continuation of HUM 105 and 106. A student may not receive credit in the same course more than once.

HUM 108 Awareness of Fine Arts/Science/Society 1(1-0)
A continuation of HUM 105, 106, and 107. A student may not receive credit in the same course more than once.

HUM 183 Asian and African Cultures 3(3-0)
An exploration of specific "non-Western" cultures, past and present. Cultural focus may vary from term to term. The course is an investigation of their religions and artistic traditions, their ideas, their cultural achievements, and their associations with other cultures.

HUM 200 Modernity & Culture (F,W) 3(3-0)
This course is designed to introduce students from a variety of programs to the humanities. This introduction will focus on the way the humanities and their concern with art, ethics, history and culture, impact on the way we construct ourselves and our sense of meaning. This course will stress interaction through writing, collaborative assignments, presentations, and discussions to emphasize the humanities' commitment to self-discovery and expression. Prerequisites: Level I General Education courses (CIS 100, MAT, ENG 111, SPE 101 or SPE 257)

HUM 213 Contemporary Literature 3(3-0)
Readings in the novel, short story, essay, autobiography, biography, poetry and drama of the late-20th Century. Prerequisites: ENG 111, ENG 112 or equivalent

HUM 251 American Studies I: The Cultural Foundations of the 20th Century 3(3-0)
Along with HUM 252, this two-semester sequence centers on American cultural myths and values, examining their origins, development, and current manifestations (e.g., ideas of equality, the frontier, competition, pursuit of happiness, liberty, destiny, etc.) The approach is historical, using materials from literature, popular culture, and historical studies. The course centers on discussion stemming from assigned readings for which the instructor sets the cultural and historical context. Students desiring social science credit should register for HIS 251.

HUM 252 American Studies II: Old Myths, New Realities in the 20th Century 3(3-0)
Continuation of HUM 251. Students desiring social science credit should register for HIS 252.

HUM 294 Field Experience in Fine Arts (SU) 3(3-0)
A travel course of an interdisciplinary nature where the world of theatre, music, dance and the visual arts are explored in a metropolitan area. Prerequisites: HUM 102 and/or any other TAI course recommended

HUM 295-299 Current Topics in the Humanities 3(3-0)
Courses designed to investigate various topics in Humanities not included in current courses. Topics will be announced.

INDUSTRIAL TECHNOLOGY

(Machine Tool)

IND 101 Basic Machine Shop Practices (F) 4(3-3)
This course* is an introduction to machine tool operation and associated processes. Students will become familiar with milling machines, engine lathes, the drill press, grinding machines and bandsaws. A knowledge of machining terminology and concepts such as speeds and feeds, tool geometry, blueprint interpretation as well as skill in the use of precision measuring tools will be developed.
*Please Note: This course has 11 Modules, IND 101A - 101K

IND 102 Machine Tool Practices II (W) 4(3-3)
The second semester Machine Tool lab course* in a four semester sequence. Thread manufacturing, precision grinding, and boring operations are explored. The ability to precisely place and inspect geometric features to determine product conformance is developed in lecture and lab demonstration.
Prerequisites: IND 101, grade of “C” or better in MAT 104 or equivalent
*Please Note: This course has 11 Modules, IND 102A - 102K
IND 113 CNC Machining 2(2-0)
An introduction to the use of computer numerical control machine tools, this course* will develop an understanding of the components, functions, safety concerns and maintenance of CNC milling machines and lathes. The role of the CNC machine operator in establishing the workpiece coordinate system, tool changing and the use of offset functions will be explored.
*Please Note: This course has 2 Modules, IND 113A - 113B

IND 116 CNC Programming (W) 4(3-3)
This course* prepares students to program and operate Computer Numerical Control lathes and milling machines. Standard EIA code format, canned cycles, communications, manual data input, machine operation and maintenance are topics of instruction. Students solve cutter location coordinate problems and write CNC programs which they load and run on industrial machines.
Prerequisites: IND 101, IND 113, grade of "C" or better in MAT 105 or MAT 170 or equivalent
*Please Note: This course has 2 Modules, IND 116A - 116B

IND 121 Manufacturing Processes (W) 2(2-0)
A survey of the processes used to manufacture parts in quantity, this course is focused upon foundry, forming, stamping, metal finishing and joining technologies. Tours of manufacturing facilities augment classroom instruction and develop understanding of the scope of manufacturing enterprise in the local economy.

IND 140 Metallurgy & Industrial Materials (W) 3(3-0)
An applied course covering the physical and mechanical properties, classification systems and heat treatment procedures for common ferrous and non-ferrous metals. Lab experiences include quench and temper, carburizing, tensile and hardness testing.

IND 171 Introduction to CAD/CAM (F) 3(3-0)
The third course in the associate degree program dealing with Computer Numerical Control of machine tools. This course teaches the student to use the latest graphics-based software to produce CNC programs for the production of complex 3D surfaces.
Prerequisites: IND 116, DRF 120 OR Instructor permission

IND 200 Industrial Topics 3(3-0)
This course is designed to cover topics of an industrial nature having to do with, but not limited to, material processing, manufacturing, material handling, material shaping, and tool design. Persons employed in related industry and students in the Machine Tool, Drafting, Welding and related programs gain meaningful insights into current technology. This is not a regularly scheduled course, but is offered when there is sufficient interest.

IND 211 Advanced Machine Shop Practices (F) 4(2-4)
Jig and fixture design and construction, process planning concepts, and standards for assembly hardware are the basis for instruction. The ability to perform complex machining tasks permitting the assembly of mating parts with a focus on setup and tooling for production is developed.
Prerequisite: IND 102

IND 212 Tool, Die and Mold Manufacturing 4(2-4)
A course devoted to the study of practices, designs, processes and materials used by toolmakers in the machine trades. Toolmakers are those qualified machinists who build dies, molds, cutting tools, jigs, fixtures, gauges and test instruments which are the basis for production manufacturing.
Prerequisite: IND 211

IND 215 Statistical Quality Control 2(2-0)
This course gives the student an understanding of quality control in industry, how it is achieved, how to use statistics to measure its probability of occurrence, methods of measurement, and means of control in the production process.

IND 250 Industrial Safety 3(3-0)
This course is designed to acquaint supervisory personnel with the requirements of OSHA and MIOSHA for the maintenance of safety provisions and accident prevention. Emphasis is placed on discussion and development of accident prevention plus plans to eliminate real and potential safety hazards.

IND 270 Principles of Robotics 3(3-0)
This course covers the construction, accuracy, speed, application, and programming necessary for robotic tools found in industry. The method of selecting the proper robotic tool for a job is covered along with the selection of the proper gripper required for the job. The principles of hydraulic and electrical systems are included so students have a better understanding of how robotic tools move.

IND 280 CNC Applications I (W) 3(0-4)
This course develops CNC programming skills, improves competencies in CNC machine operation, and provides opportunities for students to utilize computer assisted programming skills in actual machining situations. Students design and create a postprocessor program for a lathe and for a milling machine.
Prerequisite: IND 171
IND 285 Co-op (Industrial Technology) 3(1-10)
Co-op is a capstone course planned for the last semester of the Associate in Applied Science: Machine Technology Degree. The students will be employed in an approved co-op position selected by the college coordinator and will also attend a weekly one hour classroom lecture/discussion. A waiver may be allowed for the co-op experience by presenting evidence of current and appropriate employment to the co-op coordinator. Prerequisite: The student must have approval of the co-op coordinator to be placed in a co-op situation. Corequisite: IND 212

JAPANESE

JPN 101 Introductory Japanese 3(3-0)
This is an introductory course in Japanese language, designed for students with little or no previous knowledge of Japanese. This course introduces the basic structure and vocabulary of modern Japanese, stressing the use of Japanese orthography (the writing system) from the very outset, so the subsequent adjustment to reading ordinary Japanese literature is minimal. Emphasis will be on vocabulary and oral training for conversation with reasonable ease, with an introduction to readings and writing. Familiarity with the sociocultural context in which the modern Japanese language is used will also be stressed.

JOURNALISM

JOR 100 Print Media Practicum 1(1-0)
This course is designed to give the student practical experience with the print media through contributions to various publications of the College. Topics include writing style, layout, editing, photography, graphics, and ethics.

JOR 120 School Newspaper Publications 3(3-0)
A basic study of journalism as it relates to the publication of a school newspaper.

LAW ENFORCEMENT

LEN 200 Evidence 3(3-0)
A study of the rules of evidence, from its historical development through the present, pertaining to criminal cases. This course provides an examination into the testimonial, documentary and real evidence as discovered, and evaluated by police in anticipation of a criminal trial. Prerequisite: LEN 203

LEN 201 Fundamentals of Supervision & Management in Criminal Justice 3(3-0)
An introductory course designed to acquaint the student with the basics of management and supervision. Criminal Justice roles and responsibilities are examined. Management styles are discussed. Issues of management, operations, employment, training, community relations, and leadership styles all receive attention within this course.

LEN 202 Juvenile Law & Procedures 3(3-0)
This course will examine a broad spectrum of trends and causation of juvenile delinquency, specific treatment techniques, ways of controlling and preventing delinquency, and the role of the law enforcement officer in dealing with all aspects of the legal basis of the police officer’s work with juveniles.

LEN 203 Criminal Law for Police Officers 3(3-0)
This course is designed to familiarize persons or refresh law enforcement personnel with the purposes and functions of criminal law in the operation of a law enforcement agency. Topics of discussion include philosophy and source of criminal law, criminal procedure, search and seizure, arrest, specific crimes, judicial procedure, and other topics such as defendant rights. Prerequisite: LEN 205

LEN 204 Criminal Investigation 3(3-0)
This course covers the fundamentals of criminal investigation including techniques of surveillance; search at the scene of the crime; collection, recording and preservation of evidence; interviewing witnesses; interrogation of suspects; methods used in the police science laboratory; and cooperation with other agencies in investigation procedures. Prerequisite: LEN 205

LEN 205 Introduction to Law Enforcement & Criminal Justice 3(3-0)
An introductory course designed to acquaint the student with the components of the criminal justice system. Corrections, courts, police systems are examined. The criminal justice process is explored in detail. The history, relationships, administration, and philosophy of the criminal justice system is also examined.

LEN 289 Police Academy 21(0-42)
Mid Michigan Community College has signed articulation agreements with Delta College and Kirtland Community College whereby the student completes Police Academy coursework on the Delta or Kirtland campus. Students who successfully complete the Police Academy Training at Delta College or Kirtland Community College, will receive Mid Michigan Community College credit. In order to receive credit, a student must submit an official transcript, showing satisfactory completion of the Basic Police Academy, as specified by MCOLES (Michigan Commission on Law Enforcement Standards).
MATHEMATICS

MAT 035 Fundamentals of Arithmetic (F,W) 1(0-2)
MAT 036 Fundamentals of Arithmetic (F,W) 1(0-2)
MAT 037 Fundamentals of Arithmetic (F,W) 1(0-2)
These Academic Support Center courses are designed to review basic mathematical operations: whole numbers, fractions, decimals, ratio/proportion, percent/taxes/interest, probability/descriptive statistics, geometry/measurement, and preparing for algebra. Students may go through pretesting to determine which modules are needed. Successful completion of all three courses is equivalent to Math 101.

MAT 060 Math Study Skills 1(1-0)
This course will emphasize basic study skills and techniques to help students be more successful with mathematics courses.

MAT 099 Refresher Mathematics (F,W) 1(0-2)
This Individualized Learning Center course is for students who have passed 4 or 5 modules on the General Education Mathematics Competency Test and need more practice in the one or two module topics they failed to pass. Students may opt to take this class instead of retesting the modules they did not pass on the Competency Test.

MAT 101 Basic Mathematics (F,W,SU) 3(3-0)
A review of basic operations with fractions, decimals, ratios and proportions, percent, taxes and interest. Other topics will include statistics, geometry, and the English and metric measuring systems. Emphasis will be placed on applications which will aid the student in functioning in a technical society.

MAT 104 Basic Algebra (F,W,SU) 3(3-0)
Topics include real numbers, first degree equations and inequalities, special products and factoring, rational expressions, graphs, and linear systems. Prerequisite: Grade of “C” or better in MAT 101 or equivalent. Please Note: MAT 104 is also offered in modules, see next.

MAT 104.A Basic Algebra 1 of 3 (F,W) 1(0-2)
MAT 104.B Basic Algebra 2 of 3 (F,W) 1(0-2)
MAT 104.C Basic Algebra 3 of 3 (F,W) 1(0-2)
These Math Labcourses consist of one credit modules designed to allow the student to learn at a pace that will help them be successful in Basic Algebra. MAT.104.A includes basic rules, signed numbers, basic equations, and inequalities and applications; MAT.104.B includes constructing and interpreting graphs, and working with exponents and polynomials; MAT.104.C includes factoring, solving equations, and working with rational expressions. Completion of all three modules are equivalent to MAT 104. Prerequisite: Grade of “C” or better in MAT 101 or equivalent.

MAT 105 Intermediate Algebra (F,W,SU) 3(3-0)
A continuation of Basic Algebra including an in-depth study of some of the topics covered in MAT 104. Topics include polynomials, rational expressions and equations, radicals, integer and rational exponents, equations of the line, quadratic equations, functions, linear systems, and Cramer’s Rule.
Prerequisite: Grade of “C” or better in MAT 104 or equivalent. Please Note: MAT 105 is also offered in modules, see next.

MAT 105.A Intermediate Algebra 1 of 3 (F,W) 1(0-2)
MAT 105.B Intermediate Algebra 2 of 3 (F,W) 1(0-2)
MAT 105.C Intermediate Algebra 3 of 3 (F,W) 1(0-2)
These Math Labcourses consist of one credit modules designed to allow the student to learn at a pace that will help them be successful in Intermediate Algebra. MAT.105.A includes functions, graphs, and models and systems of equations; MAT.105.B includes inequalities, exponents and their operations, simplifying rational expressions, and solving radical equations; MAT.105.C includes quadratic equations, quadratic formula and functions, and exponential functions. Completion of all three modules are equivalent to MAT 105. Prerequisite: Grade of “C” or better in MAT 104 or equivalent.

MAT 116 Business Mathematics I (F,W) 3(3-0)
A course designed to show students how algebra can be applied to solve a variety of problems encountered in business management. Topics covered include: mathematical models, mathematics of finance; functions; linear functions; systems of linear equations and inequalities; linear programming; simplex logarithms; quadratic functions; and exponential functions.
Prerequisite: Grade of “C” or better in MAT 105 or equivalent.

MAT 118 Mathematics for Elementary Teachers I (F,W) 3(3-0)
This course provides part of the mathematical background necessary for elementary teachers. Topics include sets, numerations systems, elementary number theory, natural numbers, integers, and rational numbers.
Prerequisite: Grade of “C” or better in MAT 105 or equivalent.

MAT 124 Precalculus (F,W) 5(5-0)
Preparation for students who desire to study calculus. Topics include properties of real numbers, inequalities, data analysis, modeling, functions and relations, logarithms and exponential functions, circular and trigonometric functions.
Prerequisite: Grade of “C” or better in MAT 105 or equivalent.

MAT 126 Calculus I (F,W) 5(5-0)
The first of a series of four courses for mathematics, engineering, and science students. Topics include limits, continuity, differentiation of algebraic and trigonometric functions, applications of derivatives, fundamental integration, exponential and logarithmic functions.
Prerequisite: Grade of “C” or better in MAT 124 or equivalent.
MAT 170 Technical Mathematics II 2(2-0)
This applied mathematics course is for students who already have satisfactory arithmetic skills, or who have completed an introductory course, such as MAT 101. The object of the course is to apply geometry and trigonometry to realistic machine tool problems. Many problems will require the student to work with engineering drawings or blueprints. Topics covered will include signed numbers, the Cartesian coordinate system, solving equations, circles and arcs, geometric constructions, and trigonometry. Students are expected to have a scientific calculator. Calculator operations will be covered in class.
Prerequisite: MAT 101 or equivalent

MAT 212 Introduction to Probability and Statistics (F,W) 3(3-0)
Selected topics from probability, variable, data collection and summarization, distribution, hypothesis testing, regression, and correlation. An interest course for use in teaching, science, business, biology, sociology, psychology, economics and more.
Prerequisite: Grade “C” or better in MAT 104 or equiv

MAT 216 Business Mathematics II (W) 3(3-0)
This course is a sequence to MAT 116 and covers topics such as exponential and logarithmic functions, derivatives, integration, and applications to business situations.
Prerequisite: Grade of “C” or better in MAT 116 or equiv

MAT 218 Mathematics for Elementary Teachers II 3(3-0)
Continuation of MAT 118 to include decimals, percent, ratio-proportion, geometry, probability, statistics, introduction to algebra and microcomputer use.
Prerequisite: MAT 118

MAT 225 Calculus II (W) 4(4-0)
Topics include indeterminate forms, methods and applications of integration, improper integrals, parametric equations, polar coordinates, and infinite series.
Prerequisite: Grade of “C” or better in MAT 126 or equiv

MAT 226 Calculus III (W) 4(4-0)
Topics covered include: functions of n-variables, partial differentiation, multiple integration, solid analytic geometry, 3-space vectors, and Green’s Theorem.
Prerequisite: Grade of “C” or better in MAT 225 or equiv

MAT 230 Introduction To Linear Algebra (F) 3(3-0)
This course acquaints students with the theory and elementary application of vectors and matrices. Topics include linear systems, matrices, vectors, vector spaces, and linear transformations.
Prerequisite: Grade “C” or better in MAT 126 or equiv

MAT 290-299 Selected Topics 1-5(1 to 5-0)
Courses designed to investigate various topics in Mathematics not included in current courses. Topics will be announced.

MUS 100 Choral Ensemble I 1.5(0-2)
Primarily an activity but stresses the fundamentals and improvement of tone production, diction, and the blending of voices in traditional and selected vocal compositions. Appearance in public performances required for credit.

MUS 101 Choral Ensemble II 1.5(0-2)
Continuation of MUS 100.

MUS 102 Choral Ensemble III 1.5(0-2)
Continuation of MUS 101.

MUS 103 Choral Ensemble IV 1.5(0-2)
Continuation of MUS 102.

MUS 104 Choral Ensemble V 1.5(0-2)
Continuation of MUS 103.

MUS 105 MMCC Chorus I 2(0-3)
A performance group which specializes in popular music. Singing and movement ability are prerequisites. Membership is determined by audition. Attendance at all rehearsals and public performances is obligatory.

MUS 106 MMCC Chorus II 2(0-3)
A continuation of MUS 105.

MUS 107 MMCC Chorus III 2(0-3)
A continuation of MUS 106.

MUS 108 MMCC Chorus IV 2(0-3)
A continuation of MUS 107.

MUS 109 Acoustic String Bass Lessons 1(0-1)
A course designed to teach the basics of reading music. It introduces basic elements of music and music kinship, and attention is given to fundamentals of rhythm, meter, and melody.

MUS 125 Voice for the General Student (F,W) 2(2-0)
This vocal class stresses the fundamentals of tone production, diction, ensemble singing, and aids in ear training.

MUS 131 Music for Elementary Teachers 3(3-0)
This course will prepare elementary teachers for uses and applications of music in the elementary classroom.

MUS 150 Private Voice 1(0-1)
Private instruction providing the student with the means to increase proficiency in voice.
Prerequisite: MUS 125 or Instructor permission
MUS 151 Private Voice: Intermediate 1.5(0-1.5)
This course is a continuation of MUS 150. The student will continue the use of learned techniques, to acquire more information about vocal performance, and to put into practice these aspects.
Prerequisite: MUS 150

MUS 152 Private Voice: Advanced 2(0-2)
This course is a continuation of MUS 151.
Prerequisite: MUS 151

MUS 275 Music Appreciation 3(3-0)
This course will promote general musical understanding through active listening.

NATIVE AMERICAN LANGUAGE

NAL 101 Ojibwe Language I 3(3-0)
The primary purpose is to introduce the student to the Ojibwe language and to begin to have an understanding of the beauty of the language. This course is designed to acquaint the student with basic words and phrases and stress oral learning. A system of writing will be introduced.

NURSING EDUCATION

NUR 121 Fundamentals of Nursing 6(6-0)
This is the basic course in the nursing curriculum which provides the beginning nursing students with the foundation upon which other courses build and expand. The course expands on the role of the nurse in the exploration of concepts of communication skills, nursing process, nutrition, wellness and adaptation, and scientific principles and skills of basic nursing practice as applied to common physical and psychosocial manifestations of illness. In addition, the legal and ethical aspects of nursing are discussed. Includes practice of skills in the college laboratory. Prerequisite: Admission to Level I of the Program
Corequisite: NUR 124, NUR 150

NUR 124 Nursing Clinical I 5(0-15)
A clinical course which consists of guided learning experiences in selected health care facilities. Emphasis is placed on application of principles & techniques of basic nursing theory common to the institutionalized patient. Prerequisite: Admission to Level I of the Program
Corequisite: NUR 121, NUR 150

NUR 125 Care of Adult I 6(6-0)
This course focuses on care of the adult medical-surgical patient with common, well-defined, non-complex stressors. The course uses selected adaptive problems of chronic disease, rehabilitation and aging. Includes use of the three nursing roles (Direct Care Giver, Communicator, and Manager) and nursing process in planning care. In addition, a variety of topics including a brief history of nursing and nursing education, trends and problems in health care, job seeking skills and role functions of health team members.
Prerequisites: NUR 121, NUR 124, NUR 150
Corequisite: NUR 128

NUR 127 Maternal/Child 3(3-0)
This course provides concepts of normal growth and development from conception through adolescence focusing on care provided to the mother, infant, child and adolescent with common, well-defined, non-complex nursing diagnoses in a structured setting. Selected adaptive problems are utilized to emphasize the role of the nurse in direct care provision, communication and managing of care through the use of the nursing process.
Prerequisites: NUR 121, NUR 124, NUR 150
Corequisite: NUR 128

NUR 128 Nursing Clinical II 5(0-15)
A clinical course which consists of guided learning experiences in selected health care agencies. Emphasis is placed on use of nursing skills, patient plan of care, and communication techniques with patients throughout the life span for adaptation. Focus is on expansion of knowledge and skills acquired in NUR 124 to include growth and development, nutrition, drug therapy, and variations from normal.
Prerequisites: NUR 121, NUR 124, NUR 150
Corequisites: NUR 125, NUR 127

NUR 130 Nursing Clinical III 3(0-9)
This clinical course focuses on the care of groups of patients with common, well-defined, non-complex nursing diagnoses in structured settings. Included is administration of medication to assigned patients, excluding intravenous initiation and intravenous push medications.
Prerequisites: NUR 125, NUR 127, NUR 128

NUR 132 Clinical Practicum 1-6(0-3 to 18)
Additional experience in clinical nursing arranged on an individual basis for students returning to Level I of the Program after having withdrawn.

NUR 133 Transition for Advanced Standing 3(2-3)
This course is designed for the non-MMCC LPN and MMCC LPN who graduated more than 5 years ago to assist in the adaptation to MMCC’s Nursing Process Worksheet (NPW) and evaluation process. In addition, psychomotor skills are assessed and practiced in the laboratory. Clinical practice focuses on the use of the nursing process and communication techniques.
Prerequisite: Admission to Level II of the Program with advanced standing status.

NUR 150 Pharmacology (F) 3(3-0)
This course consists of theory and techniques used for legal and safe administration of a variety of types of medication preparations. It includes dosage calculation, understanding of medical abbreviations and nursing interventions used in medication administration. This course identifies prototype medications in each of the major classifications. Emphasis is placed on drug reaction, common usage, major side effects, assessment, administrations, and responsibilities for the safe and accurate administration of medications.
Prerequisite: Admission to Level I of the Program
Corequisites: First semester Level I Nursing courses unless previously passed.
NUR 227 Leadership 2(2-0)
This course provides the basics of leadership and management techniques to enable students to provide care to groups of patients. Focus is on the use of the nursing process in planning care for groups. Legal and ethical problems in nursing are explored. Includes concept of role transition from student to graduate and stress management techniques. Students must be enrolled in a clinical concurrently with this class.
Prerequisite: Completion of Semester 1 of Level II of the Program

NUR 228 Preceptorship: Clinical VI 3(0-9)
The clinical portion of the leadership course, the preceptorship is a structured experience which is part of the educational program. The primary goal is to facilitate the role transition of student nurse to graduate nurse. The student nurse, under the guidance of a selected staff, preceptor, with faculty as a resource, applies theory to practice in real-life work situations.
Prerequisites: NUR 221, NUR 222, NUR 223, NUR 224, NUR 225, NUR 226, NUR 227, HUM 200, and SSC 200 (2nd Level Gen Ed)

NUR 232 Clinical Practicum 1-6(0-3 to 18)
Additional experience in clinical nursing. Arranged on an individual basis for students returning to Level II of the Program after having withdrawn.
**OFFICE INFORMATION SYSTEMS**

**OIS 100 Keyboarding (F,W) 1(1-.5)**
This course is for anyone who wishes to develop basic touch keyboarding (typing) skills on computers. Using the touch method, students learn to key (type) alphabetic, numeric, punctuation, and symbol keys; to use the ten-key numeric keypad; and to use basic word processing features with an up-to-date version of Microsoft Word, including creating, naming, saving, and printing. In addition to classroom work, the students are required to complete a minimum of one-half hour of computer lab work per week.

**OIS 105 Introduction to Microsoft Word 1(1-.5)**
This course is for anyone who wishes to learn some of the most popular features of Microsoft Word (up-to-date version). The course begins with basic word processing operations, commands, and functions and progresses through such topics as editing, saving, closing, printing, formatting, outlining, page numbering, mail merging, selecting fonts, viewing, zooming, handling graphic objects, finding and replacing, and using templates. In addition to classroom work, the students are required to complete a minimum of one-half hour of computer lab work per week.

Microsoft Office User Specialist (MOUS) approved courseware is used to provide students with skills needed to complete the MOUS Core Certification Exam.
Prerequisite: OIS 100 recommended or keyboarding skills

**OIS 106 Introduction to COREL WordPerfect 1(1-.5)**
This course is for anyone who wishes to learn some of the most popular features of COREL WordPerfect (up-to-date version). The course begins with basic word processing operations, commands, and functions and progresses through such topics as editing, saving, closing, printing, formatting, outlining, page numbering, mail merging, selecting fonts, viewing, zooming, handling graphic objects, finding and replacing, and using templates. In addition to classroom work, the students are required to complete a minimum of one-half hour of computer lab work per week.

Prerequisite: OIS 100 recommended or keyboarding skills

**OIS 107 Introduction to Microsoft PowerPoint 1(1-.5)**
This course is for anyone who wishes to learn the fundamentals of Microsoft PowerPoint (up-to-date version). The course begins with basic operations, commands, and functions and progresses through such topics as charts, templates, fills and borders, color and animation, and sound and video. Students learn to create and give quality presentations using Microsoft PowerPoint. In addition to classroom work, the students are required to complete a minimum of one-half hour of computer lab work per week.

Microsoft Office User Specialist (MOUS) approved courseware is used to provide students with skills needed to complete the MOUS Core Certification Exam.
Prerequisite: OIS 100 recommended or keyboarding skills

**OIS 108 Introduction to Microsoft Excel 1(1-.5)**
This course is for anyone who wishes to learn some of the most popular features of Microsoft Excel (up-to-date version). The course begins with basic operations, commands, and functions and progresses through such topics as creating, editing, saving, printing spreadsheets and saving, closing, and opening workbooks. In addition to classroom work, the students are required to complete a minimum of one-half hour of computer lab work per week.

Microsoft Office User Specialist (MOUS) approved courseware is used to provide students with skills needed to complete the MOUS Core Certification Exam.
Prerequisite: OIS 100 recommended or keyboarding skills

**OIS 109 Introduction to Microsoft Access 1(1-.5)**
This course is for anyone who wishes to learn some of the most popular features of Microsoft Access (up-to-date version). The course begins with basic operations, commands, and functions and progresses through such topics as designing, creating, maintaining, editing, saving, and printing databases & generating reports & mailing labels. In addition to classroom work, the students are required to complete a minimum of one-half hour of computer lab work per week.

Microsoft Office User Specialist (MOUS) approved courseware is used to provide students with skills needed to complete the MOUS Core Certification Exam.
Prerequisite: OIS 100 recommended or keyboarding skills

**OIS 110 Introduction to Microsoft Outlook 1(1-.5)**
This course prepares students to identify the basic features of Microsoft Outlook 2000, send messages, and use the Calendar feature effectively. In addition to classroom work, each student is required to complete a minimum of one-half hour of computer lab work per week.

Prerequisite: OIS 100 recommended or keyboarding skills

**OIS 120 Office Mathematics (F,W) 3(3-1.5)**
This course covers basic mathematical operations & concepts as applied to a variety of business situations. Examples of topics: review of arithmetic operations, fractions, decimals, mortgages, taxes, checking accounts, payroll, & consumer & business credit. In addition to classroom work, each student is required to complete a minimum of 1 1/2 hours of individual lab work per week.

**OIS 125 Applied Office Accounting (W) 3(3-1.5)**
This course covers basic accounting skills needed in the medical and legal office. Emphasis is on both the "how" and "why" of accounting and on performing the accounting function. A practice set will be used to simulate accounting transactions in the medical or legal office--based on the student's program emphasis. In addition to classroom work, the student is required to complete a minimum of 1 1/2 hours of individual lab work per week.
Prerequisite: OIS 120
Prerequisite for Medical Assistant only: MAT 101

OIS 126 Introduction to Medical Transcription (F) 3(3-1.5)
This course serves as an introduction to processing medical reports. Students prepare consultation reports, history and physical examination reports, operative reports, discharge summary reports, and special procedure reports including magnetic resonance imaging (MRI) reports, computerized axial tomography (CAT) reports, and sonogram reports. An integrated instructional approach is used where students learn medical terms as they appear in medical reports and relate those terms to the pathologies being treated. This course is an introduction to machine transcription for students pursuing the Associate in Business Degree: Medical Transcriptionist. In addition to classroom work, the students are required to complete a minimum of three hours of individual computer laboratory work per week. Prerequisite: OIS 140 or competency Corequisite: ALH 100 recommended

OIS 130 Intro to Office Information Systems (F,W) 4(4-2)
This course serves as an introduction to the concepts of word and information processing, and covers such topics as the evolution of word and information processing, the changes to the traditional office structure, a review of equipment and software characteristics, possible career paths, and a review of the types of tasks and duties performed in the word and information processing office. An introduction to office suite software is included, which teaches students the skills needed to pass core certification exams. These exams validate a student's skills, and supply objective proof to an employer, or prospective employer, that the student knows how to use the software efficiently and productively. Microcomputers are used to produce an variety of Business and Academic documents. Internet use and E-mail are introduced. Students will be asked to write a research paper and give an oral presentation. In addition to the classroom work, each student is required to complete a minimum of two hours of individual computer laboratory work per week. Microsoft Office User Specialist (MOUS) approved coursework is used to provide students with skills needed to complete the MOUS Core Certification Exam. Prerequisite: OIS 100 or keyboarding knowledge Corequisite: OIS 140

OIS 136 Terminology & Proofreading (W) 3(3-1.5)
This course helps the student build a better vocabulary & improve spelling & proofreading skills. Three hundred groups of commonly confused words & special lists of frequently misspelled terms are studied. Topics include working with the dictionary, pronunciation, phonetics, word division, prefixes and suffixes, plurals & possessives, & specialized & reference vocabularies. Students improve proofreading skills by identifying errors in typing, spelling, grammar, punctuation, capitalization, format, numbers, word division, & content using appropriate proofreader’s marks. In addition to the classroom work, each student is required to complete a minimum of 1 1/2 hours of individual computer lab work per week. Prerequisites: OIS 164, ENG 111 (may be taken concurrently)

OIS 138 Basic Legal Terminology (F) 3(3-1.5)
This course is designed to give students knowledge and understanding of approximately 800 terms commonly used in the legal field. The students will learn to spell and define the terms and to use them in a legal context. Students will learn correct pronunciation by studying pronunciation guides taken from the dictionary and by listening to taped dictation. Topics covered include courts and legal systems; litigation—pretrial, trial, proceedings, verdicts, judgments, and appeals; civil actions; criminal law; probate—wills and estates; real property; contracts; leases; domestic relations—marriage, separation, and divorce; commercial paper; bankruptcy; agency; equity; partnerships; and corporations. In addition to classroom work, the students are required to complete a minimum of 1 1/2 hours of individual laboratory work per week. Prerequisites: OIS 140 or equivalent or concurrent enrollment, OIS 164 recommended or concurrent enrollment

OIS 140 Beginning Word Processing/Keyboarding (F,W) 3(3-1.5)
This course is for the beginning typist. Topics include mastery of the touch system, development of personal-use skills, basic letter styles, tabular, centering using the most current word processing software. Speed ranges of 25-40 words a minute are needed to pass. In addition to classroom work, each student is required to complete a minimum of 1 1/2 hours of individual computer laboratory work per week.

OIS 142 Intermediate Word Processing/Keyboarding (F,W) 3(3-1.5)
This course is designed to build a marketable keyboarding (typewriting) skill. Business letters, business forms, speed, and accuracy are stressed. Students will use the most current word processing software to create documents. Speed ranges of 40-55 words a minute are needed to pass. In addition to the classroom work, each student is required to complete a minimum of three 1 1/2 of individual computer laboratory work per week. Prerequisite: OIS 140 or equivalent

OIS 164 Business Communications I (F,W) 3(3-1.5)
Students will learn/review basic grammar rules, punctuation rules, and sentence structure. Students will use the computer and current word processing software for realistic business office applications of the rules. Students will be introduced to machine transcription and will learn to use office reference manuals. In addition to classroom work, students are required to complete a minimum of 1 1/2 hours of individual computer laboratory work per week. Prerequisite: Recommend concurrent enrollment in OIS 140 or OIS 100 or knowledge of correct keyboarding techniques.
OIS 200 Advanced Word Processing Applications
(W) 3(3-1.5)
This course gives students hands-on experience and exposure to a wide variety of advanced word processing applications using computers and the most current word processing software. The advanced word processing features included teach students the skills needed to pass expert certification exams. These exams validate a student's skills, and supply objective proof to an employer, or prospective employer, that the student knows how to use the software efficiently and productively. Microcomputers are used to produce a wide variety of business and academic documents, as well as ways in which the software program interacts with Windows and the Internet. Practice exercises and assignments are the primary source of instruction on the microcomputer. In addition to classroom work, each student is required to complete a minimum of 1 1/2 hours of individual computer laboratory work per week. Microsoft Office User Specialist (MOUS) approved courseware is used to provide student's with skills needed to complete the MOUS Expert Certification Exam.
Prerequisites: OIS 140 or equivalent, OIS 130 recommended

OIS 221 Computers in Business 3(3-1.5)
This course provides insight into the applications of the computer in modern business. The student will study the components of a business computer system, typical applications involving mainframe and personal systems, structure, use of files and databases, and the concepts of networking, teleprocessing, and distributed systems; explore the techniques of business computer system development; and also develop skills in using productivity programs such as databases and spreadsheets to build models solving practical business problems. In addition to the classroom work, each student is required to complete a minimum of 1 1/2 hours of individual computer laboratory work per week.
Prerequisite or Corequisite: ACC 201

OIS 230 Transcription I (F) 3(3-1.5)
Using the computer, current word processing software, transcription machines and a variety of reference materials, students develop skill and accuracy in transcribing from cassette tapes and producing "mailable" documents. Transcription begins with sentences and expands to business letters and other correspondence. Emphasis is placed on correct spelling, grammar, and punctuation skills and proofreading. In addition to classroom work, the students are required to complete a minimum of 1 1/2 hours of individual computer lab work per week.
Prerequisites: ENG 111, OIS 130, OIS 136, OIS 142, OIS 164
Prerequisites for Medical Assistant only: ALH 100, ENG 111, OIS 130, OIS 142, OIS 164

OIS 234 Transcription II (W) 3(3-1.5)
This course is an intense application of skills learned in business communications, English, keyboarding/word processing, transcription, and other OIS courses. The students transcribe dictated material into high-quality (mailable) typewritten documents using computers, current word processing software, cassette transcribing machines, and a variety of reference materials. To provide a realistic experience, a word processing simulation is used. In addition to classroom work, each student is required to complete a minimum of 1 1/2 hours of individual computer lab work per week.
Prerequisites: OIS 200, OIS 230, OIS 240

OIS 236 Medical Transcription I (W) 3(3-1.5)
This course is an intense application of skills learned in business communications, English, keyboarding, transcription, & medical terminology. The students transcribe dictated material into high-quality (mailable/usable) documents using computers, current word processing software, transcribing machines, & a variety of reference materials. To provide a realistic experience, a medical simulation is used along with dictated documents on cassette recordings. In addition to classroom work, students are required to complete a minimum of 1 1/2 hours of individual computer lab work per week.
Prerequisites: ALH 100, OIS 142, OIS 230
Prerequisites for Medical Transcription students: ALH 100, OIS 126. Corequisite: OIS 142

OIS 238 Legal Transcription (W) 3(3-1.5)
This course is an intense application of skills learned in business communications, English, keyboarding/word processing, transcription, and legal terminology. The student will transcribe dictated material into high-quality (mailable) documents using computers, current word processing software, cassette transcribing machines, and a variety of reference materials. A legal simulation will be used along with dictated documents on cassette recordings. In addition to classroom work, each student is required to complete a minimum of 1 1/2 hours of individual computer lab work per week.
Prerequisites: OIS 138, OIS 200, OIS 230, OIS 240
OIS 240 Advanced Word Processing/Keyboarding (F) 3(3-1.5)
Advanced keyboarding (typewriting) techniques as related to mailable production work are emphasized. Problem-solving ability is developed. To provide a realistic experience, a word processing simulation is used. Speed ranges from 55 to 70 words a minute are needed to pass. In addition to classroom work, each student is required to complete a minimum of 1 1/2 hours of individual lab work per week.
Prerequisites: ENG 111, OIS 136, OIS 142, OIS 200
Prerequisites for Medical Transcription students: ENG 111, OIS 136, OIS 142

OIS 246 Medical Transcription II (F) 3(3-1.5)
This course is a continuation of OIS 236 Medical Transcription. Students continue to build their medical terminology knowledge and to transcribe and format high-quality (mailable/usable) medical documents according to guidelines set by the American Association for Medical Transcription (AAMT). Students use computers, current word processing software, transcribing machines, and a variety of reference materials. A medical simulation is used, giving students opportunities to hear and transcribe realistic dictation in many medical specialties as dictated by medical professionals from various ethnic groups. In addition to classroom work, the students are required to complete a minimum of 1 1/2 hours of individual computer lab work per week.
Prerequisite: OIS 236

OIS 250 Records Management (F) 3(3-1.5)
Emphasis is given to clear-cut rules established by the Association of Records Managers and Administrators (ARMA) for the alphabetic indexing and cross-referencing methods (the foundation of records storage methods), as well as the numeric, geographic, chronological, and subject methods. Students are provided realistic records management situations through the use of a simulation. Topics include creation, storage, retrieval, retention, and disposal of records as well as careers in records management. In addition to traditional/paper storage, students use the computer and current software for information storage and retrieval. In addition to classroom work, students are required to complete a minimum of 1 1/2 hours of individual lab work per week.
Prerequisites: ENG 111, OIS 136, OIS 142

OIS 254 Office Procedures (W) 3(3-1.5)
This is a capstone course planned for the last semester of the student's program and is an intense application of skills learned in previous courses. Topics include dress and grooming for business, human relations, telephone etiquette, dictation techniques, job search strategies, effective research and oral presentation techniques, interview preparation, self-analysis and self-improvement, professionalism, and problem solving. Students participate in mock employment interviews and program assessment exit interviews with OIS advisory committee members. Other forms of OIS program assessment may be required. The student continues with preparation of high-quality (mailable) documents from both dictated and rough draft materials. In addition to classroom work, the student is required to complete a minimum of 1 1/2 hours of individual lab work per week.
Prerequisites: OIS 230, OIS 240

OIS 256 Medical Transcription III (W) 3(3-1.5)
This course is a continuation of OIS 246 Medical Transcription II and is the capstone course on the Associate in Business Degree: Medical Transcriptionist program. Students continue to build their knowledge of medical terminology and to transcribe and format high-quality medical records according to guidelines set by the American Association for Medical Transcription (AAMT). Students use microcomputers, word processing software, cassette transcribing machines, and a variety of reference materials. A medical simulation is used, giving students opportunities to hear and transcribe realistic dictation in several specialties as dictated by medical professionals from various ethnic groups. Students are also given critical-thinking and problem-solving scenarios. In addition to classroom work, the students are required to complete a minimum of 1 1/2 hours of individual computer lab work per week.
Prerequisite: OIS 246
OIS 260 Co-op (Medical, Legal, General) (W) 4(1-15)
This is a capstone course planned for the last semester of the student's program. Students will be employed in an approved Co-op position selected in conjunction with the OIS Co-op course instructor, the MMCC Co-op Coordinator, and the student. This course allows students to combine learning in the classroom with learning in the workplace. An agreement is signed by the student, the employer, and the coordinator to establish training outcomes and employer expectations. MMCC cannot guarantee that Co-op positions are "paid" positions.
Prerequisites: In order to be placed in a training site and enrolled in OIS 260, the student should have completed the first three semesters of the program and must have approval of the OIS Co-op instructor and the MMCC Co-op Coordinator.

OIS 264 Business Communications II (F,W) 3(3-3)
This course studies approaches to verbal and nonverbal communications in business-related situations. Students will prepare written correspondence including business letters and formal business reports. Students will learn techniques for effective oral presentations including the basic creation and use of PowerPoint slides. Internet use is emphasized throughout the course. In addition to classroom work, students are required to complete a minimum of three hours of individual lab work per week.
Prerequisites: ENG 111, SPE 101, OIS 140, and CIS 100 or CIS 130 or OIS 130

OIS 295-299 Special Topics in Office Information Systems 1-3(1 to 3-0)
These courses are designed to investigate various topics in Office Information Systems that are not included in current courses. Topics will be announced. These courses are offered based on demand.

PHILOSOPHY

PHL 201 Introductory Philosophy (F) 3(3-0)
A problem approach organized to introduce the student to some of the thinkers, systems, and problems of philosophy facing humanity from ancient times to the present.

PHL 205 Practical Reasoning & Argumentation 3(3-0)
This course develops reasoning skills & equips students to recognize & analyze arguments as they occur in a variety of contexts (ie: editorials, critical discussions, quarrels, advertisements, speeches, academic inquiries, negotiations, legal deliberations, ethical debates, etc.). Study will focus on the features of good arguments, different types of arguments, ways arguments can go wrong, & techniques for criticizing & constructing effective arguments. Emphasis is not on theories but on developing tools for successful thinking in dialogue with others.

PHL 210 Social Philosophy: Ideal & Realities (F) 3(3-0)
This course is an inquiry aimed at discovering which questions are the right ones to ask when evaluating a social system or when designing it. It covers several major social philosophies, as reflected in utopian and dystopian writings, and focuses on issues such as human nature, freedom, rights, and obligations, and the relationship between individual and community.

PHL 220 Ethical Issues (W) 3(3-0)
A study of ethical principles, reasoning and practice as it occurs in such areas as business, law, medicine, ecology, and government. A brief review of the historical development of ethical theory together with case studies will be the primary focus of the course. The main objective is to provide students with the intellectual tools for recognizing and analyzing such ethical issues as confront members of our society.

PHL 290-299 Selected Topics 1-3(1 to 3-0)
These courses are designed to investigate various topics in Philosophy that are not included in current courses. Topics will be announced.

PHYSICAL EDUCATION

PED 102 Body Mechanics and Conditioning 1(0-1)
A physical education activity course designed to emphasize the role of exercise in improving general physiological conditions. Aerobic and anaerobic exercises are done and an actual exercise program is set up by the instructor to meet each individual student's needs.

PED 103 Body Mechanics/Aerobics (F,W,SU) 1(0-1)
Exercise through choreographed dancing. The course includes an understanding of aerobic exercise, the proper approach to physical fitness, and its effect on tension and better health.
**PED 107  Beginning Kardio-Kickboxing  1(0-1)**
This course is designed to provide an intense cardiovascular workout utilizing exercise routines with a combination of martial arts and boxing techniques. The intensity and duration of the workouts can be varied to meet individual needs. Instruction and demonstration is provided during class sessions by Tae Kwon Do certified instructors.

**PED 118 Beginning Tennis (F,SU)  1(0-1)**
This course is designed to introduce the student to the game of tennis. Major emphasis is on basic strokes, scoring, etiquette, and selection of equipment.

**PED 119 Beginning Golf (SU)  1(0-1)**
This course is designed to introduce students to the basic principles of golf. In addition to learning and practicing the golf swing, rules and etiquette of the game are discussed. Students may use their own equipment or rent from the golf facility where the class is held.

**PED 124 Beginning Skiing (W)  1(0-1)**
This course is designed to introduce students to basic downhill skiing on an established ski resort hill. Students may use their own equipment or rent from the ski resort.

**PED 126 Beginning Bowling  1(0-1)**
This course is designed to introduce students to the basic game of bowling. Open to all students; a fee is charged for rental of bowling facilities. Students may use their own equipment or rent from the bowling alley where the class is held.

**PED 127 Weight Training and Conditioning  1(0-1)**
A course in weight training and conditioning for the individual who desires to increase strength and muscle endurance. The course focuses upon the development of each individual muscle and muscle group. Students are required to have hand-held weights and a mat.

**PED 130 Slalom Racing  1(0-1)**
This course is designed to introduce recreational skiers to competitive skiing. The course includes different types of races such as slalom, giant slalom, and dual slalom. Exercises on skis to develop a good racing technique are used extensively. Proper ski maintenance and tuning are an integral part of the course.

**PED 132 Beginning Karate (F,W)  1(0-1)**
This course has been designed to help the participating student understand the art of karate, not only as a method of self-defense but as a 2,000 year old art developed to better-coordinate the body and mind. Emphasis is placed on physical fitness, history of the art, self-discipline, and self-defense. Involved are body-movement principles, a progressive exercise program, and other desirable health and mental aspects of the art of karate.

**PED 133 Modern Dance I  1(0-1)**
This course includes basic locomotion and aerial movement skills through demonstration and participation, creation of individual routines emphasizing learning skills, and the development of several group routines for public performance.

**PED 134 Dance Techniques I  1(0-1)**
A course designed to familiarize the student with dance for partners including jitterbug, fox trot, polka, and waltz.

**PED 136 Cross-Country Skiing (W)  1(0-1)**
Students are introduced to the fundamentals of Alpine cross-country skiing. Students are taught selection and care of equipment, rudimentary ski movement, step-down, moving ahead over snow, controlling speed, wedge turn polling, compass and map reading, and waxing for various snow conditions and temperatures.

**PED 139 Introduction to Nordic Ski Racing  1(0-1)**
This course is designed to introduce students to cross-country racing. It teaches different types of techniques, equipment, waxing, clothing, and different types of terrain involved in Nordic skiing.

**PED 143 Self Defense  1(0-1)**
A course designed to teach basic self-defense skills. The emphasis is on environmental awareness, psychological preparedness, simple and effective self-defense techniques, and strategies for dealing with specific situations. Self-defense is approached in a variety of ways, providing a wide range of alternatives to suit the individual.

**PED 203 Intermediate Body Mechanics/Aerobics (F,W,SU)  1(0-1)**
A continuation of PED 103 with emphasis on developing increased cardiovascular fitness.
Prerequisite: PED 103 or permission of the Instructor

**PED 207 Intermediate Kardio-Kickboxing  1(0-1)**
This course is a continuation of PED 107.
Prerequisite: PED 107

**PED 218 Intermediate Tennis (F,SU)  1(0-1)**
This course is a continuation of PED 118 with major emphasis shifting to singles and doubles play.

**PED 219 Intermediate Golf (SU)  1(0-1)**
A continuation of PED 119 with emphasis on the use of specific clubs and types of shots, e.g. woods, short irons, chipping, etc.

**PED 224 Intermediate Skiing (W)  1(0-1)**
Students begin upper/lower body separation leading to steered turns and matching of skis before the fall line is emphasized.
PED 226 Intermediate Bowling  1(0-1)  
A continuation of PED 126 with emphasis on spot bowling, consistency, and accuracy.

PED 227 Intermed Weight Training/Conditioning  1(0-1)  
Continuation of PED 127.
Prerequisite: PED 127

PED 232 Intermediate Karate (F,W)  1(0-1)  
The purpose of this course is to provide students already knowledgeable in the rudiments of the art with the opportunity to gain more substantial expertise in specific aspects of the art. These include self-defense, sport fighting, philosophy, and history.

PED 233 Modern Dance II  1(0-1)  
A continuation of PED 133 with emphasis on further development of skills. Appreciation and understanding of contemporary dance as an art form and medium of expression are also included.

PED 236 Intermediate Cross-Country Skiing  1(0-1)  
A class intended to expand the basic cross-country skiing skills with emphasis on advanced Nordic skiing techniques.

PED 239 Intermediate Nordic Skiing  1(0-1)  
A continuation of PED 139.

PED 243 Adv Body Mechanics/Aerobics (F,W,SU)  1(0-1)  
A continuation of PED 203 with emphasis on increasing knowledge of the use of dance techniques for cardiovascular fitness.
Prerequisite: PED 203 or permission of the Instructor

PED 244 Advanced Skiing  1(0-1)  
Students are introduced to parallel skiing. Exercises to develop upper level dynamic skiing i.e. short radius, fall line skiing is emphasized.

PED 246 Advanced Bowling  1(0-1)  
A continuation of PED 226 with emphasis on adjusting the game to alley conditions, changing lines and spots, etc.

PED 247 Advanced Kardio-Kickboxing  1(0-1)  
This course is a continuation of PED 207.
Prerequisite: PED 207

PED 248 Advanced Tennis  1(0-1)  
This course is designed primarily to improve a player’s court strategy. The volley net is emphasized.

PED 249 Advanced Golf  1(0-1)  
A continuation of PED 219 with emphasis on accuracy, shot placement, selecting the right club, etc.

PED 252 Advanced Karate (F,W)  1(0-1)  
This course is designed for the student who has completed PED 232 or who can perform the basic techniques of Moo Duk Kwan Tang Soo Do. Upon completion of the course the student should be prepared to earn an eighth gup purple belt under requirements set forth by the Karate Institute. Emphasis is on forms, hand and foot techniques, one-step sparring, and class sparring.

PED 255 Physical Training  3(0-3)  
This course is designed to help students pass the M.C.O.L.E.S. physical training requirements. The objective is to teach the student to become physically and mentally fit to become a police officer.

PHYSICAL SCIENCE

PSC 101 Introductory Astronomy  4(3-2)  
An introduction to astronomy for students who desire a basic understanding of the solar system and the universe. Topics include: historical astronomy, exploration of space, stellar evolution, solar system, galaxies, and the universe. Laboratory work includes individual student use of a telescope.

PSC 102 Introductory Physical Science  4(3-2)  
A general course for non-science majors. Selected topics for students interested in energy, meteorology, geology, physics, and chemistry and their interrelationships as they affect the physical environment of persons.
Prerequisite: MAT 104 or equivalent

PSC 105 Awareness of Fine Arts, Science, and Society  1(1-0)  
An interdisciplinary study designed to develop the student's awareness of the interrelationships of the artistic, scientific, and technological aspects of our society and investigate their impact upon contemporary society from a variety of perspectives. Various methods of instruction may be used for this course including independent readings or research, lecture and discussion, projects associated with a field trip, or travel of recognized educational value.

PHYSICS

PHY 101 Introductory Physics (Non-lab)  3(3-0)  
A general non-mathematical physics presentation stressing a conceptual as opposed to laboratory approach. Some topics of discussion are mechanics, sound, heat, electricity, light, nuclear concepts, and everyday encounter of principles governing these topics. (Not recommended for students majoring in science.)

PHY 103 Applied Physics (F,W)  4(3-2)  
This course is designed for students enrolled in technical education programs. The purpose of the course is to provide an understanding of physical principles and their application to industry. The course content includes a study of precision measurements; properties of solids, liquids, and gases; force and motion; work energy and power; vectors; analysis of basic machines; temperatures and heat.
Corequisite: MAT 104 or equivalent

PHY 105 Introductory College Physics I (F)  5(4-2)  
This course focuses on the study of motion, forces, energy, sound, wave motion and heat. Students should have had or be currently taking a class in trigonometry.
Corequisite: MAT 124 or equivalent
PHY 106 Introductory College Physics II (W)  5(4-2)
Continuation of PHY 105. Topics studied include optics, electricity and magnetism, atomic and nuclear theory and relativity.
Prerequisite: PHY 105

PHY 211 General Physics I (F)  5(4-2)
This course covers mechanics, sound, and heat. It is a mathematical treatment of problems of force, motion, and energy designed for pre-engineering students and physics or mathematics majors. Not open to students with credit in PHY 105 or PHY 106.
Corequisite: MAT 126 or equivalent

PHY 212 General Physics II (W)  5(4-2)
Electricity, magnetism, light, relativity, and nuclear structure are discussed. Designed for pre-engineering students and physics majors. Not open to students with credit in PHY 105 or PHY 106.
Prerequisite: PHY 211

POLITICAL SCIENCE

POL 100 Current Political Issues  1-3(1 to 3-0)
The purpose of this course is to examine contemporary political issues of local, state, national, or international concern. Typical issues might include: reform of the United States election system; income versus property taxes; local zoning laws; the role of government in the economy; pax Americana.

POL 201 Intro to American Government (F,W,SU)  3(3-0)
The emphasis of this course is the structure and function of our national government, understanding the processes of decision-making, and assessing the political importance and role of the individual citizen. The student is also introduced to some political theory as applicable to the American experience.

POL 250 International Relations  3(3-0)
A study of the nature of the international community and the forces which produce cooperation and conflict. Particular attention is given to analyzing power in terms of its acquisition and uses.

POL 290-299 Selected Topics  1-3(1 to 3-0)
These courses are designed to investigate various topics in Political Science that are not included in current courses. Topics will be announced.

PSYCHOLOGY

PSY 101 Intro to General Psychology (F,W,SU)  3(3-0)
This course introduces students to the science of psychology. It includes systematic and comprehensive coverage of basic concepts and principles, terminology, important trends in psychological research, and application of this research. Emphasis is placed on principles of sensation, perception, maturation, learning, motivation, emotion, and the physiological basis of behavior.

PSY 205 Abnormal Psychology (F,W,S)  3(3-0)
This course introduces students to the nature, development, classification, and causes of mental disorders as viewed from four major perspectives in psychology today: the psychodynamic, the behavioral, the humanistic-existential, and the neuro science. In addition, major theories, significant research, and methods of treatment associated with each of these approaches are presented.
Prerequisite: PSY 101

PSY 210 Psychology of Personality (W)  3(3-0)
This course presents a systematic approach to the basic principles of psychology involved in the development, assessment, description, and modification of personality and includes a description and analysis of major personality theories.
Prerequisite: PSY 101

PSY 212 Developmental Psychology  (F,W,S)  3(3-0)
This course introduces students to the description and explanation of changes in an individual’s behavior that are a result of maturation and experiences that fall within the life span concept; e.g. behavior-genetics, critical periods, learning cognition, and abnormal development. In addition, this course provides the student with an introduction into methodological research.
Prerequisite: PSY 101

PSY 220 Intro to Psychological Testing  3(3-0)
This course is designed to introduce the student to the basic principles of psychological testing. The course will cover the history of psychological testing, assessment in a variety of areas including intelligence testing, personality assessment, neurological assessment, and vocational assessment, and issues relating to test development and review.
Prerequisite: PSY 101

PSY 250 Clinical Interviewing & Counseling  (F,W)  3(3-0)
This course is an introduction to theories of counseling as well as the techniques and processes of client and counselor communication. Students explore attitudes, values, and motivation for counseling. Emphasis is placed on the role of the counselor in various agency capacities as well as the development of empathetic and listening skills.
Prerequisite: PSY 101 or permission of the Instructor

PSY 281 Behavior Modification  (F)  3(3-0)
This course is an introduction into a survey of developments in behavior alteration. Specifically, emphasis is on behavior modification techniques in the areas of motivation, elimination of undesirable behaviors, an increase of desirable behaviors, and the promotion of academic and social participation in education and other environments.
Prerequisite: PSY 101
PSY 290-299 Selected Topics 1-3(1 to 3-0)
These courses are designed to investigate various topics in Psychology that are not included in current courses. Topics will be announced.

RADIOGRAPHY

RAD 100 Intro to Radiologic Technology 3(2-2)
This course is an introduction to the radiologic technology profession. Areas of study include the history of medicine, development of the practice of radiology and radiologic technology, medical relationships and ethics, principles of radiographic exposure, fundamentals of x-ray production, and principles of x-ray film processing. Practice in the fundamentals of equipment operation and film processing in the Campus x-ray lab provide the basis for developing initial psychomotor skills necessary to function as a radiologic technologist.
Prerequisite: Admission to the Program

RAD 101 Intro to Radiologic Technology 1-3(0-1 to 3)
This course is part of a series of courses to be offered on an independent study basis for students who have previously passed the corresponding MMCC Radiography Program course or its equivalent and require a refresher or remedial course for the purposes of reentering or seeking advanced placement in the Radiography Program, or requalifying for the American Registry of Radiologic Technologists examination. The course is an introduction to the Radiologic Technology profession. Subject areas studied are the introduction of the following topics: hospital and Radiology department organization, professional organizations, medical legal issues and ethics, use of basic x-ray equipment and accessories with emphasis on the prime factors, pathology and effect of density, beam restricting devices, grids, film processing, quality assurance, sensitometry, and intensifying screens.
Prerequisites: All Radiography Program prerequisites or equivalent, and RAD 100 or equivalent with a grade "C" or better.

RAD 110 Radiation Physics (F) 3(2-2)
This course correlates the basic concepts and principles of physics with the production, control, and application of x-radiation. The focus is on the study of the structure of matter, mechanical principles, electricity, and magnetism as related to the development and application of x-ray machinery. The measurement and detection of radiation and laboratory exercises in electrodynamics supplement the principles and concepts.
Prerequisite: Admission to the Program

RAD 111 Radiation Physics (Ind. Study) 3(0-1 to 3)
This course is part of a series of courses to be offered on an independent study basis for students who have previously passed the corresponding MMCC Radiography Program course or its equivalent and require a refresher or remedial course for the purposes of reentering or seeking advanced placement in the Radiography Program, or requalifying for the American Registry of Radiologic Technologists examination. The course reviews units of measurement, forces, motion, electrostatics, magnetism, basic electrical circuits, and introductory concepts in atomic and nuclear physics. It also review x-ray production and interaction of x-rays with matter.
Prerequisites: All Radiography Program prerequisites or equivalent, and RAD 110 or equivalent with a grade "C" or better.

RAD 115 Principles of Radiographic Exposure 3(2-2)
A study of the prime factors in radiographic techniques determination, the geometric and photographic basis of radiographic image formation, and how these relate to radiographic quality. Methods of technical conversions for adjusting radiographic technique to maintain radiographic quality are studied. An overview of the different systems of radiographic techniques is presented and students learn how to formulate a radiographic technique system.
Prerequisite: Successful completion of the first semester RAD courses.

RAD 116 Principles of Radiographic Exposition-Review 1(0-1)
This course is part of a series to be offered on an independent study basis for students who have previously passed the corresponding MMCC Radiography Program course or its equivalent. Students taking this course require a refresher or remedial course for the purposes of reentering or seeking advance placement in the Radiography Program, or re-qualifying for the American Registry of Radiologic Technologists examination. The course is a study of the prime factors in radiographic technique determination, and how these factors relate to radiographic image quality factors. Conversion methods for adjusting radiographic technique to maintain radiographic quality are studied. An overview of radiographic techniques is presented, and students learn how to formulate a technique chart. Also studied are, mobile radiography, image intensification, tomography, and digital radiography.
Prerequisite: RAD 115 or equivalent

RAD 130 RadiographicPositioning I & II (W) 4(2.5-2.5)
Introduction to radiographic positioning fundamentals, terminology and procedures. The fundamentals of patient care are integrated with the study of the basic radiographic procedures of the thorax, abdomen, upper and lower extremities, shoulder, pelvis, and spinal column. Practice of the basic skills required in these procedures is done in the Campus x-ray lab.
Corequisite: RAD 115
RAD 175 Radiographic Positioning III (SU) 3(1-5)
A continuation of the fundamentals of radiographic positioning procedures and patient care. Principles of the use of contrast media in radiology are correlated with positioning procedures of the gastrointestinal, urinary, and biliary systems. Adaptation of routine radiographic procedures to mobile and operative radiographic situations is introduced. Practice in the x-ray and nursing labs permit the development of basic skills needed to perform the procedures. A one day a week clinical laboratory schedule orients the student to the hospital and the radiology department operations.
Prerequisite: Successful completion of all 2nd semester RAD and Science courses.

RAD 176 Radiographic Positioning II - Review 1(0-1)
A combined review of radiographic positioning and patient care procedures. The study of the fundamentals of patient care and handling is integrated with study of the basic radiographic procedures of the thorax, abdomen, upper and lower extremities, pelvic girdle, spinal column, cranium, facial bones, sinuses, upper gastrointestinal system, lower gastrointestinal system, gall bladder and biliary ducts, urinary system, mammary gland, pediatric radiography, tomography, arthrography, and myelography. Practice of the basic skills required in these procedures may take place in the campus x-ray lab. If the student needs to practice at MMCC, a mutually agreeable time can be arranged. A cumulative final will be given at MMCC following successful completion of review materials and satisfactory demonstration of positioning competency. Fifteen to twenty competencies will be performed depending on skill level demonstrated.
Prerequisite: RAD 130, RAD 175 or equivalent

RAD 200 Clinical Education I 8(0-32.4)
The first phase of clinical practicum in the hospital environment. The students review the hospital organization and operation, become familiar with hospital policies and procedures and are introduced to and integrated into the Radiology Department operations. Opportunity to develop and perfect the initial skills needed to function as a radiologic technologist is scheduled, and the basic radiographic procedures are practiced and assessed. Student film conferences are conducted and pertinent clinical issues are discussed. This course will meet for 19 weeks.
Prerequisite: Successful completion of all first-year requirements.
Corequisites: RAD 201, RAD 215

RAD 201 Clinical Issues in Radiography I 2(2-0)
This course is the first in a series of courses intended to augment first year introductory courses and complement clinical education. Topics covered are medical legal issues, medical ethics, communication in radiology, and critical thinking/problem solving in radiography. In addition, students evaluate selected radiographs taken during clinical education. A semester project integrating didactic concepts with clinical education is conducted. Review is begun for the American Registry of Radiologic Technologists examination.
Prerequisite: RAD 175
Corequisite: RAD 200

RAD 214 Review of Radiation Protection, Radiobiology, and Quality Assurance 1(0-1)
This course is part of a series to be offered on an independent study basis for students who have previously passed the corresponding MMCC Radiography Program course or its equivalent. Students taking this course require a refresher or remedial course for the purposes of reentering or seeking advance placement in the Radiography Program, or re-qualifying for the American Registry of Radiologic Technologists examination. The course provides a review of the basic principles of radiation protection, radiobiology, and quality assurance.
Prerequisite: RAD 215, RAD 230 or equivalent

RAD 215 Radiologic Techniques I 2(2-0)
Advanced study of the application of radiation and its effects. Areas of concentration are on biological effects of ionizing radiation, principles of radiation protection, and practical applications of radiation protection in the clinical situation. Laboratory exercises and experiments utilizing low-level radiation sources, radiation-measuring instruments and biological specimens in the microbiology lab provide the student observable evidence of ionizing radiation effects.
Prerequisite: RAD 175
Corequisite: RAD 200

RAD 217 Radiologic Techniques II 2(2-0)
A continuation of advanced study in radiologic technology. Radiographic procedures and imaging methods used to demonstrate special anatomical areas or systems are investigated. The pathological processes that necessitate radiological investigation are introduced and correlated with their diagnostic manifestation on the imaging format utilized.
Prerequisites: RAD 200, RAD 201, RAD 215
Corequisites: RAD 220, RAD 221
RAD 220 Clinical Education II 9(0-32.8)
The second phase of clinical practicum in the hospital environment provides the opportunity for the student radiologic technologist to develop and perfect the skills to function as a radiologic technologist. Additional radiographic procedures are practiced and assessed. Student film conferences are again conducted. This course will meet for 20 weeks. 
Prerequisite: RAD 215

RAD 221 Clinical Issues in Radiography II 1(1-0)
This course is the second in a series of courses that augment clinical education. In addition to film conference and registry review, topics covered are medical ethics, career planning, and resume writing. A semester project related to clinical education is assigned. 
Prerequisites: RAD 200, RAD 201
Corequisites: RAD 220, RAD 217

RAD 225 Clinical Education III 5(0-33.3)
The final phase of clinical practicum in the hospital environment designed to perfect the basic skills and develop the fundamental skills in more technically-exacting procedures. Remaining entry-level procedures are assessed, and student film conferences are conducted. This course will meet for 12 weeks. 
Prerequisites: RAD 217, RAD 220

RAD 226 Clinical Issues in Radiography III 1(1-0)
This course is a third in a series designed to augment clinical education. Included in this course is a capstone component that requires successfully completing a simulated registry examination. Other topics include interviewing skills and continuing education professional requirements. 
Prerequisites: RAD 220, RAD 221
Corequisite: RAD 225

RAD 227 Radiography Review Series Capstone 1(0-1)
This course is part of a series to be offered on an independent study basis for students who have previously completed a Radiography Program accredited by the Joint Review Committee on Education in Radiologic Technology. Students taking this course require a refresher or remedial course of study in order to re-qualify for the American Registry of Radiologic Technologists examination. The course primarily provides a review of all basic concepts on Radiography, as contained in the primary textbook. Other topics covered are preparation for review, American Registry of Radiologic Technologists examination procedure, and test-taking skills. As a capstone feature, students are required to take two simulated registry examinations, and must pass (75%) at least one of them. 
Prerequisites: RAD 101, RAD 111, RAD 116, RAD 176
Corequisite: RAD 214

RAD 230 Radiographic Quality Assurance 1(1-.5)
The course introduces the student to the principles, concepts, instrumentation, and testing methods used in radiology departments for quality control of the radiographic imaging system(s). Practice in the fundamentals of quality-control testing methods on the imaging system components is done in the Campus x-ray lab. Elements of a department wide quality assurance program are discussed. 
Prerequisite: RAD 220
Corequisite: RAD 225

RAD 240 Radiographic Review and Refresher 1-6(1 to 6-0)
A review and/or update course for practicing radiographers or for those who have not been practicing for a period of time. The content is mutually agreed upon by the individual student and program coordinator. The design and methods of implementation of the course are developed by the program coordinator and a contract is drawn up specifying the content, objective, time frame, credit hours, and requirements. The emphasis of the content is tailored to the needs of the individuals with emphasis placed on effective allocation and utilization of available resources to achieve the objectives established.

SCIENCE

SCI 200 Science, Technology & Society (F,W) 3(2-2)
This course is designed to introduce students from a variety of programs to the sciences. This introduction will focus on the way science and technology impacts each person’s everyday life and their particular role in the environment. Knowledge will be gained for individuals to achieve scientific literacy sufficient to understand public issues. The course will stress interaction through student presentations and student-led discussions.
Prerequisites: Level I General Education courses (CIS 100, ENG 111, MAT, SPE 101 or SPE 257)

SCI 290-299 Selected Topics 1-5(1 to 4-0 to 3)
These courses are designed to investigate various topics in Science that are not included in current courses. Topics will be announced.

SECONDARY EDUCATION

SED 107 Introduction to Teaching 3(3-0)
Introduction to teaching as a career. Survey of students’ behavior and effective teachers’ responsibilities preparatory to guided observation and participation in K-12 settings.
SSC 100 Career Planning 2(2-0) 
This participatory course is designed to assist students in developing life planning skills to enable them to make informed choices for career and life. The course focuses on self-awareness and assessment; academic planning; and career awareness, exploration, decision-making, and planning.

SSC 101 Personal Development 2(2-0) 
Introduction to the development of home management, parenting skills, and consumer-skil knowledge.

SSC 103 Freshman Seminar 1-3(1 to 3-0) 
This course is designed to increase the student's success in college by assisting the student in obtaining skills necessary to reach his/her educational objectives. Topics in this course include time management, thinking strategies, communication and relationship skills, study techniques, resource management and personal issues that face many college students. This course does not satisfy Group III requirements for graduation.

SSC 104 College Study Skills (F,W) 2(2-0) 
The purpose of this course is to provide an opportunity for students to learn and adopt methods to promote their success in college. This course does not satisfy Group III requirements for graduation.

SSC 106 Employment Training Skills 1(1-0) 
The goal of this course is to develop and master all skills necessary to secure employment. Topics covered include skill identification, resume writing, job-seeking skills, job-seeking plan, interviewing techniques, applications, letter of application, thank-you notes, and successful job behaviors. It is recommended that students enroll in this course the semester prior to employment. This course does not satisfy Group III requirements for graduation.

SSC 109 Professional Development 3(3-0) 
This course is designed to introduce students to expectations and occurrences common to the working world. Emphasis will be placed on developing a plan for permanent employment which will involve the discussion of an employee's role and how one maintains successful employment. A major component of the course will be the interaction between students and instructors as they discuss proper attitudes and behaviors on the job. This course does not satisfy Group III requirements for graduation.

SSC 190-199 Special Topics/Social Science 1-3(1 to 3-0) 
Special Topics is a course designed to present various topics in Social Science that are not included in current courses. Topics will be announced. This course is offered based on demand and does not satisfy Group III requirements for graduation.

SOC 100 Principles of Sociology (F,W,SU) 3(3-0) 
This course discusses the principles governing relationships among human beings & the organization of human societies. Primary emphasis on contemporary American society with integration of classical theories of sociology.

SOC 105 Awareness of Fine Arts/Science/Society 1(1-0) 
An interdisciplinary study designed to develop the student's awareness of the interrelationships of the artistic, scientific, and technological aspects of our society. It is recommended that students enroll in this course, including independent readings or research, lecture and discussion, projects associated with a field trip, or travel of recognized educational value.

SOC 101 Principles of Sociology (F,W,SU) 3(3-0) 
This course identifies the factors and issues in humanity's quest of a high quality of life in a changing technological society. The nature, extent, and consequences of major social problems are examined in terms of underlying social processes as well as specific factors. Prerequisite: SOC 101 recommended

SOC 102 Social Psychology (F) 3(3-0) 
This course examines the relationship between the individual and society. Contemporary theory and research are applied to areas such as symbol interaction, self, socialization, conformity, aggression and violence, group behavior, the social construction of reality, etc. Students are also introduced to the basic methods in social psychology and their application in everyday life. Prerequisite: SOC 101 recommended

SOC 103 Sexuality and Society (F,W) 3(3-0) 
This course analyzes the impact of society on sex and sexuality. Emphasis is on interpersonal relationships and factual information necessary to enable students to understand better their own sexuality. Topics including sex roles, sexual interaction, sexual physiology, and public issues related to sex are discussed utilizing contemporary research and cultural definitions. Prerequisite: SOC 101 recommended
SOC 222 Juvenile Delinquency  3(3-0)
This course provides the student with a concentrated overview of theory and research in the field of juvenile delinquency. Students will review research findings on various aspects of juvenile delinquency, of the characteristics of young offenders, and of the results of different forms of judicial and therapeutic interventions designed to prevent or control delinquent activities.
Prerequisite: SOC 101

SOC 250 The American Family  3(3-0)
This course analyzes the development of the family as a contemporary social-institution. Factors which influence the makeup, stability, and the cultural and interpersonal contributions of the modern American family are discussed.

SOC 289 Gender Studies  3(3-0)
This course is an analysis of the impact of gender throughout the social world. The impact of gender in social institutions, cultural definitions, & interpersonal relationships will be explored. Gender inequality & its reproduction will be a focus. Emphasis will be on the relationship of gender to other aspects of social location and diversity.
Prerequisite: SOC 101 recommended

SOC 290-298 Current Topics / Sociology 1-3(1 to 3-0)
Courses designed to investigate current topics of sociological relevance not included in courses currently listed. Topics will be announced.

SPANISH

SPN 101 Elementary Spanish I (F)  3(3-0)
Basic language skills, emphasizing oral practice & aural comprehension. Open to students who have not previously had Spanish.

SPN 102 Elementary Spanish II (W)  3(3-0)
A continuation of SPN 101.
Prerequisite: SPN 101 or equivalent

SPEECH

SPE 101 Fund of Communication (F,W,SU)  3(3-0)
A basic course in interpersonal communication & public speaking. Through observation, presentation, games, role play, valuing, & personal encounter, the student learns to encode & receive messages, verbal & nonverbal, with confidence & empathy. Skills in perception & concentration are emphasized.

SPE 105 Basic American Sign Language  3(2-2)
This course is designed to give students a basic introduction to American Sign Language which includes signing and finger spelling, expressive and receptive, and information about deaf culture and different sign systems.

SPE 121 Listening Skills  2(2-2)
A course designed for study and practice in the development of effective listening skills.

SPE 195 Intercultural Communication  3(3-0)
This course introduces the student to the field of intercultural communication, emphasizing the way in which culture influences perception of your "self" and others and the manner in which it affects communication behaviors and expectations. In addition, this course provides an opportunity to explore other cultures, heighten cultural awareness and sensitivity, and develop communication skills to successfully negotiate through diverse cultural experiences. In that "culture" refers not only to national differences, but to differences of all types (e.g., values, gender, race, communication patterns), this course will focus on the way we can manage the differences between ourselves and others in a mutually satisfying manner.

SPE 205 Basic American Sign Language II  3(2-2)
Continuation of SPE 105. This course increases the student's receptive and expressive skills while continuing to provide information and knowledge of deaf culture.
Prerequisite: SPE 105 or permission of the instructor
SPE 215 Basic American Sign Language III 3(2-2)
This course continues to increase students’ sign vocabulary and knowledge of the grammatical structure of American Sign Language (ASL). English and ASL idioms are explored, as well as additional uses of classifiers. Students will begin to develop skills in changing English text to ASL.

SPE 225 Basic American Sign Language IV 3(2-2)
This course will build upon previously learned American Sign Language (ASL) vocabulary, grammar, and structure. Students will continue to increase their understanding of and correct use of ASL. Special emphasis will be placed on developing skills in signing English texts in ASL.
Prerequisite: SPE 215

SPE 251 Foundations of Communication 3(3-0)
This course concerns itself with theories and research in the field of human communication. There will be three segments to this course. The first will consider preliminary issues of definitions of communication and theory and broad theoretical approaches to communication. The second will consider theories specific to elements of the communication process (such as persuasive outcomes and verbal/nonverbal behaviors). The final segment will focus on context-specific theories.
Prerequisite: 9 hours of SPE completed

SPE 253 Small Group Communication 3(3-0)
This course examines the major concepts, principles, and theories associated with human communication behavior in small groups and provides practice with effective group communication skills. This course will enable you to be better able to analyze and evaluate your own participation in groups and to engage in competent communication practices in the group context. Since both interpersonal processes and problem-solving features of groups are important determinants of the group’s overall effectiveness, this course will focus on both these areas.

SPE 257 Public Speaking 3(3-0)
This course is designed to build and refine the student’s overall communication skills, with special emphasis given to public speaking contexts. Students will examine theories and techniques for creating public speaking and apply these principles in class activities.

SPE 261 Interpersonal Communication 3(3-0)
This course is designed to build and refine the student’s interpersonal communication skills. Special emphasis will be given to understanding how relationships form and the role of communication in initiating, maintaining, and terminating relationships. Students will examine and develop skills in interpersonal communication for both personal and professional contexts. Although the central theme of the course will remain consistent for all students, assignments and communication activities will be adapted to each student’s chosen professional emphasis.

SPE 263 Professional Interviewing 3(3-0)
This course is designed to build and refine the student’s overall communication skills, with special emphasis given to various professional interviewing situations (employment, counseling, etc.). Students will examine the concepts and theories relevant to interview communication practices, apply these principles to communication issues and problems encountered in interview situations, and, through continued practice, set and achieve goals essential to preparing for and conducting successful interviews. Although the central theme of the course will remain consistent for all students, assignments and communication activities will be adapted to each student’s chosen professional emphasis.

SPE 264 Organizational Communication 3(3-0)
This course is designed to introduce the student to the current theories and practices relevant to the management of communication systems in formal organizations and provide the student with a practical understanding of organizational communication.

SPE 265 Theories of Persuasion 3(3-0)
This course is structured to give the student an understanding of persuasion theory and how it functions within society. Specifically, this course will focus on the principles of attitude formation and change, its relationship to behavioral outcomes, and the role of communication in actuating those outcomes.

SPE 267 Nonverbal Communication 3(3-0)
This course is designed to increase awareness of the different concepts and theories associated with nonverbal communication and to allow the student to improve skills in this area of communication. Throughout the course, students will examine the different elements which make up the nonverbal message system and, within each area, talk about some of the current social and communication issues relevant to today’s world.

SPE 270-279 Special Topics in Communication 1-6(1 to 6-0)
Variable topics/credit course designed to address special issues and/or employ innovative teaching techniques in the study of communication.
Prerequisite: Permission of the Instructor

SPE 285 Directed Activities in Forensics 1-3(0-1 to 3)
This course is designed to build and refine the student’s overall communication skills, with special emphasis given to public speaking contexts and interactions that go beyond those traditionally available in a classroom setting. Students may choose to compete (at the local, state, and/or national level) in debate, individual events (persuasive speaking, impromptu speaking, etc.), or both. Students will participate in forensics activities as part of the Central Michigan University Forensics Team.
Prerequisite: Permission of the Instructor
SPE 290 Internship in Communication Studies 1-3(.25 to 1 - 3.25 to 10)
This course is designed to provide the student with "real world" experience in which to apply the knowledge and skills he/she has developed in studying communication. With an advisor, the student will arrange to work with an organization for college credit. The student will be expected to participate and process his/her experience with both the college advisor and the organizational supervisor. Students must obtain application forms and internship guidelines from the Chair of the Communication Studies program.
Prerequisite: Permission of Chair of the Communication Studies program.

THEATRE AND INTERPRETATION

TAI 204 Theatre - Musical 3(3-0)
Discussion of musical theatre including all aspects of a production. A musical production is included as part of the course.

TAI 205 Children's Theatre 3(3-0)
Discussion of theatre for children including all aspects of a production. A children's theatre production is included as part of the course.

TAI 206 Theatre - Mystery 3(3-0)
Discussion of mystery as a form of theatre including all aspects of a production. A mystery production is included as part of the course.

TAI 207 Theatre - Comedy 3(3-0)
Discussion of comedy theatre including all aspects of a production. A comedy production is included as part of the course.

TAI 208 Theatre - Serious Drama 3(3-0)
Discussion of serious drama including all forms of tragedy. A serious dramatic production is included as part of the course.

TAI 275 Appreciation of the Theatre (W) 3(3-0)
A survey of theatre history and an introduction to basic types of plays; concepts of professional and amateur; and principles of play selection, casting, and promotion are covered in this course.

TAI 277 Stagecraft and Stagelighting (F,W) 4(4-0)
This course includes the basic principles of scenery construction and the theory and practice of stage lighting.

TAI 287 Costuming (F,W) 3(3-0)
This course is a survey of costume history, Egyptian to the present, and includes an introduction to design and construction techniques.

WELDING TECHNOLOGY

WLD 126 Basic Welding I (F,W) 3(2-2)
Fundamentals of oxyacetylene brazing, oxyacetylene cutting, oxyacetylene welding, arc welding, MIG welding, and TIG welding are included in this course. Emphasis is placed on penetration welds in the flat position.

WLD 127 Basic Welding II (F,W) 3(2-2)
Fundamentals of oxyacetylene brazing, cutting, arc welding, and MIG welding are included in this course. Emphasis is placed on penetration welds and out-of-position welds. Prerequisite: WLD 126 or permission of the Instructor.

WLD 130 Metal Fabrication (W) 3(2-2)
Fundamentals of metal fabrication procedures and metal layout procedures are covered in this course. Pipe layout and procedures are also covered. Prerequisites: WLD 127 and DRF 101

WLD 150 Non-Destructive Testing 3(3-0)
A course to familiarize the student with the student with the theory, technique, and equipment used for magnetic particle and liquid penetrant test methods as they are applied to inspection and nondestructive testing in the metal fabrication industry for quality control.

WLD 225 Advanced Welding (F,W) 8(4-8)
Multi-position welding will be emphasized. The use of arc, TIG, and MIG welding equipment and weld-testing devices are covered. Reading of welding prints and use of A.W.S. welding symbols are also included. This course prepares students to pass A.W.S. structural code welding tests on plate. Prerequisite: WLD 127
WLD 226 Industrial Welding (F,W) 8(4-8)
This course builds further proficiency in manual welding processes along with the associated welding theories. The welding processes in this course include submerged arc welding, TIG, MIG, SMAW, and pattern layout; and operation of multi-oxyacetylene electric-eye cutting torches. Prerequisite: WLD 225

WLD 227 Advanced Industrial Welding (F,W) 8(4-8)
A further study of destructive and nondestructive testing, study and operation of plasma-arc welding (PAW) and plasma-arc cutting (PAC) are included in the course. The students also become more proficient in their chosen areas of manual welding processes. Prerequisite: WLD 226

WLD 245 Pipe Welding (F) 3(2-2)
This course is designed to prepare students to meet the requirements of the A.W.S. D1.1-79 (American Welding Society) and A.S.M.E. Section 9 code (American Society of Mechanical Engineers) for power piping. This course includes safety in welding and cutting; pipe beveling; preparation of beveled or branch pipe; electrode selection; butt weld-vertical fixed position 2G; butt weld-horizontal fixed position 5G; and pipe layout. Prerequisite: WLD 127

WLD 246 Advanced TIG Pipe Welding (W) 3(2-2)
This course is designed for the individual who is interested in becoming proficient in the TIG process in all welding positions for pipe welding. Students weld ferrous and nonferrous piping in horizontal and vertical fixed positions as required of A.W.S. D1.1-79 (American Welding Society), A.S.M.E. Section 9 code (American Society of Mechanical Engineers), and A.P.I. Standard 1104, 15th Edition (American Petroleum Institute). Prerequisite: WLD 245

WLD 281 Special Project - Welding I 2(2-0)
Students engage in intensive practice in a chosen welding technique or process such as MIG or TIG welding. Prerequisite: WLD 127 or equivalent experience as determined by the Instructor

WLD 282 Special Project - Welding II 2(2-0)
Continuation of WLD 281. Prerequisite: WLD 281
V. GENERAL

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FULL-TIME FACULTY

Bernard E. Alford, Ph.D. (1979) English, Humanities, Communications
B.S. Central Michigan University
M.A. Central Michigan University
Ph.D. Michigan State University

B.S. Ferris State University
M.A. Central Michigan University

Alan G. Barnhart (1979) Business
B.S. Eastern Michigan University
M.A. Eastern Michigan University

Patricia A. Block (1987) Graphics Design
B.F.A. Michigan State University
M.F.A. Central Michigan University

Charles W. Bowden (1976) Sociology, Social Science
A.A. Ferris State University
B.S. Central Michigan University
M.A. Central Michigan University

Deborah M. Claypool, Ph.D. (1994) Biology
B.S. Southeast Missouri State University
M.S. Oklahoma State University
Ph.D. Oklahoma State University

Susan M. Cobb (1986) Special Pop. Counselor/Coordinator
A.A. Mid Michigan Community College
L.L.P.C. Central Michigan University
B.S. Central Michigan University
M.A. Central Michigan University

David Demski (1999) Automotive Technology
B.S. Central Michigan University

Linda Jensen (2000) Transfer Counselor
L.L.P.C. Central Michigan University
M.A. Brigham Young University

B.A.A. Central Michigan University
C.W.I. Certification

Catherine L. King (1998) Nursing Education
M.S.N. University of Phoenix
NNP Childrens Hospital Columbus, OH
B.S.N. Eastern Michigan University
A.S.N. - RN Wayne County Community College

Sherlyn C. Loubert (1995) Nursing Education
B.S. Eastern Michigan University
M.S. University of Michigan

B.S. Central Michigan University
M.S. Central Michigan University

Karen L. McGuire (1985) Accounting, Business, OIS
B.S. Central Michigan University
M.S. Ferris State University
M.B.A. Central Michigan University

Larry A. Miller (1985) Industrial Technology
B.S. Michigan State University

Jack L. Morse (1968) Chemistry, Geology, Physical Sci
B.S. Michigan State University
M.S. University of Tennessee

Jeff Percha (1993) Chemistry, Biology
B.S. Central Michigan University
M.S. Central Michigan University

James D. Quackenbush (1988) Lit, Comm, ENG, SPN
B.A. Grand Valley State College
M.A. Western Michigan University

Richard W. Thomas (1995) Speech Communications
B.A. Slippery Rock State College
M.A. University of Illinois: Champaign-Urbana

Mark A. Todd (1987) Heating/Refrigeration/Air Conditioning
A.A.S. Mid Michigan Community College
B.A. Spring Arbor College
M.A. Ferris State University

James H. VanderMey (1980) ENG, PHL, Communications
B.A. University of Michigan
M.A. University of Michigan

Jean H. Willis (1979) Office Information Systems
A.A.S. Alpena Community College
B.S. Central Michigan University
M.B.E. Central Michigan University

B.S. Central Michigan University
M.S. Ferris State University
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<tr>
<th>Name</th>
<th>Degree(s)</th>
<th>Institution(s)</th>
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<td>James Ackerman</td>
<td>industrial Technology Certificate Mid Michigan Community College</td>
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<td>John Ade</td>
<td>Criminal Justice B.A. Michigan State University</td>
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<td>Luzdelys Andarcia</td>
<td>(1999) Spanish, Language Lab Tech A.S. Indiana State University</td>
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<td>Shaun Baker, Ph. D.</td>
<td>(1999) Philosophy B.A. University of Texas @ Arlington M.A. Wayne State University Ph.D. Wayne State University</td>
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<td>Sally Beeson</td>
<td>(1990) Nursing Education L.P.N. Alma Practical Nursing School R.N. Ferris State University M.S. Andrews University</td>
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<td>Lisa Boettcher</td>
<td>(1997) Science, Mathematics B.S. Lake Superior State University</td>
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<td>Mary Bosman</td>
<td>(1991) Nursing Education B.S.N. University of Windsor M.S. Andrews University</td>
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<td>Steven Boyer</td>
<td>(1997) Mathematics B.S. Central Michigan University M.T. Marygrove</td>
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<td>Kathleen Bracken</td>
<td>(2001) English B.A. Central Michigan University B.P.H. Grand Valley State University</td>
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<td>John Bradac</td>
<td>(1990) Law Enforcement B.A. Ferris State University M.A. Michigan State University</td>
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<td>Thomas Brauch, Ph.D.</td>
<td>(1992) English B.A. St. John's University M.A. University of Minnesota Ph.D. University of Minnesota</td>
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<td>Angela Brown</td>
<td>(2000) Shared Time A.A. Mid Michigan Community College</td>
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<td>Marlene Byers</td>
<td>(2001) Political Science A.S. Jackson Community College B.S. Spring Arbor College M.A. Central Michigan University</td>
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<td>William Dominguez</td>
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<td>Carrie Falls</td>
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<td>Joshua Farrell</td>
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<td>Mark Hopkins</td>
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<td>A. Walker Miller</td>
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<td>Susan Moutsatson</td>
<td>1994</td>
<td>ANT, PSY, Communications</td>
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<tr>
<td>Name</td>
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<td>Rosalyn N. Nedry</td>
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<td>Darcy Norris</td>
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<td>Jay Nyzowyj</td>
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<td>Suzanne Pappas</td>
<td>1999</td>
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<td>Joseph Phillips</td>
<td>1972</td>
<td>Sociology</td>
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<td>Marie Rawson</td>
<td>1999</td>
<td>Business</td>
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<td>Rodney Reid</td>
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<td>Richard Riddle</td>
<td>2002</td>
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<td>Paul Robb</td>
<td>1982</td>
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<td>1989</td>
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<td>Duane Schafer</td>
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<td>Jack Schneppe</td>
<td>2000</td>
<td>Theatre</td>
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<td>Jeffery Schultz</td>
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<td>Political Science</td>
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<td>Samuel Sellers</td>
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<td>Industrial Technology</td>
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<td>Elizabeth Shaffer</td>
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<td>Alice Sikkenga</td>
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<td>Michael Woodruff</td>
<td>2000</td>
<td>Criminal Justice</td>
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</table>
ADMINISTRATION

SENIOR ADMINISTRATORS

Ronald G. Verch (1968) President
B.S. Northern Michigan University
M.S. Northern Michigan University

Michael W. Jankoviak, Ph.D. (1994) Vice President of Academic Services
B.A. Northern Michigan University
M.A. Michigan State University
Ph.D. Michigan State University

Gwladys A. Austin, Ed.D. (1990) Vice President-Institutional Services
B.S. Michigan State University
M.A. Central Michigan University
Ed.D. Eastern Michigan University

Jerome E. Fribley (1977) Dean of Occupational Studies
B.S. Central Michigan University
M.B.E. Central Michigan University

Lillian Frick, CPA (1999) Chief Financial Affairs Officer
A.Acc. Lansing Community College
B.A. Michigan State University

Scott Govitz (2000) Executive Director of M-TEC
B.S. Central Michigan University

Christine M. Pechacek (1992) Dir. of Human Resources
B.A.A. Central Michigan University
M.A. Central Michigan University

Beth L. Sendre (1994) Dean of Nursing & Academic Sciences
R.N. Ball Memorial Hospital School of Nursing
B.S.N. Ferris State University
M.S.N. Grand Valley State University

Martin Trombley (1999) Dean of Contracted & Continuing Education
B.S. Ferris State University
M.A. Central Michigan University

ADMINISTRATORS

Carol J. Adkins (1976) Financial Aid Officer
B.A. Northwood University

Kimberly M. Barnes (1992) Director-Admissions & Placement
A.Sec.Sci. Mid Michigan Community College
B.B.A. Central Michigan University

Mary E. Battaglia (1995) Worksite/Recruiting Coordinator
A.B.A. Mid Michigan Community College
B.S. Central Michigan University

Jennifer J. Bolle (2001) MI-SBDC Regional Director, Region 4
A.B. Mid Michigan Community College
B.S. Central Michigan University

Jennifer A. Cooper (1988) Financial Aid Officer
A.B.A. Mid Michigan Community College

Gale M. Crandell (1989) Director of Financial Aid
B.S. Central Michigan University

Carol J. Darlington (1986) Special Training Coordinator
A.A./A.B. Mid Michigan Community College
B.S. Central Michigan University
M.A. Central Michigan University

B.S. Central Michigan University
M.A. University of Missouri

Karen Kleinhardt (1986) Director of BIDC
A.G.T. Mid Michigan Community College

Kirk A. Lehr (1995) Director of Computer & Communication Services
B.A. Grand Rapids Baptist College

Steven A. Rellinger (1998) Dir. of Student Services, MP
B.S.B.A. Central Michigan University
M.A. Counseling

Linda M. Ritz (1999) Director of Library & Media Services
B.G.S. University of Michigan
M.I.L.S University of Michigan

B.A. Michigan State University
M.B.A. Saginaw Valley State University

John B. Skinner, R.T. (R) (1990) Director of Radiography
B.A. Alma College
M.Ed. Boston University
M.S.A. Central Michigan University

William D. Whitman (1979) Director of Physical Plant

PROGRAM & SERVICES COORDINATORS

Jay Anderson (2001) Instructional Coordinator-Industrial Trades
A.A. Bay College
B.S. Northern Michigan University
M.A. Central Michigan University

A.A. St. Clair County Community College
B.S. Central Michigan University

A.A. Lansing Community College

Amber Logan (1999) Coordinator of Distance Education
A.A. Mid Michigan Community College

Galen P. Miller (1996) Radiography Clinical Coordinator
B.S. Western Michigan University
ARRT Certification

A.A.S. Owens Community College
B.S. Ferris State University
M.S.A. Central Michigan University

Camilla Sendre (1997) Part-Time Student Advisor
B.A. Michigan State University
M.A. Central Michigan University
L.L.P.C.

ENTERPRISE MANAGERS

Chris Kliewoneit (1984) Systems Manager
A.B. Mid Michigan Community College

Kelly Koch (2000) Bookstore Manager
A.B. Mid Michigan Community College
B.S.B.A. Central Michigan University

Terry J. Loafman (1996) Custodial Foreman
A.B. Mid Michigan Community College

Barbara A. Yost (1991) Hospitality Services
ADMINISTRATIVE SUPPORT STAFF

Marie Elliot (1998) Adm Asst to Director of Human Resources
A.A.S. Ferris State University
B.S. Ferris State University

Virginia M. Gordon (1985) Adm Asst to VP of Academic Svcs
Certificate Mid Michigan Community College
A.G.T. Mid Michigan Community College

Sherry Kyle (1987) Administrative Ass to the President
A.G.T. Mid Michigan Community College

DEPARTMENTAL STAFF

Pebblesann Adsit (2001) Bookstore Sales Clerk
A.B. Mid Michigan Community College

Dawn A. Alberts (1979) Theatre Production Specialist
A.A. Mid Michigan Community College

Barbara Amrhein (2000) Exec. Secretary, BIDC & M-TEC
A.A. Delta College

Karen L. Archambault (1986) Resource Learning Specialist
Certificate Mid Michigan Community College
M-TEC
A.B. Mid Michigan Community College

Lori A. Bowers (1996) Computer Lab Technician
A.B. Mid Michigan Community College

Martha J. Budd (1987) Accounts Payable Specialist
A.Sec.Sci. Mid Michigan Community College

Rochelle M. Carter (1976) Assessment Specialist
A.A. Mid Michigan Community College

Sylvia Conway (1974) Faculty Secretary
A.A. Mid Michigan Community College

Tena G. Diamond (1990) Executive Secretary, Fin Aid Office
Certificate Mid Michigan Community College
A.Sec.Sci. Mid Michigan Community College

Paula M. Fairchild (1991) Exec Secretary, MI-SBDC, Region 4
A.Sec.Sci. Mid Michigan Community College


Beth Fitzpatrick (2001) Accounts Receivable Specialist
A.B. Mid Michigan Community College
B.B.A. Davenport

Alan J. Gamble (1994) Biology, Science Lab Technician
B.A. Albion College
M.A.T. Central Michigan University

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Roy Gamache (2001) Custodian

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Patrick Loafman (2001) Custodian

Phil Miller (2002) Custodian


Thomas J. Vozar (1975) Operations Support Assistant


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