MESSAGE FROM THE PRESIDENT

If you are looking through this catalog, you must be searching for something.

Perhaps you want to acquire skills that can lead to a high wage, high demand career or that can enhance your current job. Perhaps you need competitively priced classes for transfer to a four-year college or university. Maybe you want education that provides short term, real world benefits, offered conveniently online or close to your home or place of work.

You may need assistance in starting your own business or training your employees. You may want to stay current with the technological changes that impact every facet of life in today’s fast paced, rapidly changing society. You may be unsure of what we offer, but you have recognized that continuing your education will enrich your life.

Whatever prompted you to look through this catalog, be assured that we can help. At Mid Michigan Community College, you will find a caring, personalized environment where people listen to you with respect and assist you in getting from where you are to where you want to be. Great careers – and changed lives – start at Mid Michigan Community College. Why not start today?

Christine M. Hammond, Ph.D.
MMCC President

LOCATIONS

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 with several nature trails.

MMCC’s Mt. Pleasant Campus is 27 miles south of the Harrison Campus. Located on 44 acres at the corner of Broadway and Summerton, the Mt. Pleasant campus features modern facilities and services that mirror those offered in Harrison.

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, ski hills, and hundreds of miles of snowmobile trails.

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. Published May 2015.

For the most current information go to our website at www.midmich.edu.
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## Harrison Campus Switchboard
(989) 386-6622

## Mt. Pleasant Campus Switchboard
(989) 773-6622

### COLLEGE FAX NUMBERS:
- Administration - Harrison: (989) 386-9088
- Bookstore - Mt. Pleasant: (989) 317-4628
- Bookstore - Harrison: (989) 386-8443
- Center for Student Services - Mt. Pleasant: (989) 772-2386
- College Advancement - Harrison: (989) 802-0994
- Human Resources - Harrison: (989) 317-4631
- Tech Center - Harrison: (989) 802-0971
- Nursing - Harrison: (989) 386-6666
- Shipping & Receiving - Harrison: (989) 386-7736
- SOAR Center - Harrison: (989) 386-6613

### BUSINESS OFFICE

<table>
<thead>
<tr>
<th>Phone Number</th>
<th>Location/Room Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>386-6610</td>
<td>HC Administration</td>
</tr>
<tr>
<td>386-6611</td>
<td>HC 1st Floor - SOAR</td>
</tr>
<tr>
<td>386-6640</td>
<td>HC Room 215</td>
</tr>
<tr>
<td>386-4620</td>
<td>MP - Room 152</td>
</tr>
<tr>
<td>386-6697</td>
<td>HC Shipping &amp; Receiving</td>
</tr>
<tr>
<td>386-6652</td>
<td>HC Room 270</td>
</tr>
<tr>
<td>386-4611</td>
<td>MP Room 132</td>
</tr>
<tr>
<td>386-6621</td>
<td>HC Room 120</td>
</tr>
<tr>
<td>386-6601</td>
<td>HC Administration</td>
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<td>386-6609</td>
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### ACADEMIC SERVICES

<table>
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<td>386-6658</td>
<td>HC Room 268</td>
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<tr>
<td>773-6622, ext. 129</td>
<td>MP Room 115</td>
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<tr>
<td>386-6653</td>
<td>HC Room 290</td>
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<tr>
<td>317-4630</td>
<td>MP Room 103</td>
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<td>386-6629</td>
<td>Tech Center - Harrison</td>
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<td>386-6667</td>
<td>HC Room 252</td>
</tr>
<tr>
<td>386-6643</td>
<td>HC Room E-243</td>
</tr>
<tr>
<td>386-6631</td>
<td>HC Room 252A</td>
</tr>
<tr>
<td>386-6607</td>
<td>HC Room 206</td>
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### STUDENT SERVICES

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<td>386-6638</td>
<td>HC Room 219</td>
</tr>
<tr>
<td>773-6622, ext. 230</td>
<td>MP Room 173</td>
</tr>
<tr>
<td>386-6622, ext. 395</td>
<td>HC Room 104</td>
</tr>
<tr>
<td>773-6622, ext. 236</td>
<td>HC Room 111</td>
</tr>
<tr>
<td>386-6659</td>
<td>HC Room 104</td>
</tr>
<tr>
<td>773-6622, ext. 241/221</td>
<td>MP Room 156</td>
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</tr>
<tr>
<td>386-6638</td>
<td>HC Room 219</td>
</tr>
<tr>
<td>773-6622, ext. 287</td>
<td>MP Room 168</td>
</tr>
<tr>
<td>386-6617</td>
<td>HC Library</td>
</tr>
<tr>
<td>773-6622, ext. 100</td>
<td>MP Room 156</td>
</tr>
<tr>
<td>386-6629</td>
<td>Tech Center - Harrison</td>
</tr>
<tr>
<td>386-6634</td>
<td>HC Room 219/MP Room 238</td>
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ACADEMIC CALENDAR

(Schedule Subject to Change)

Fall Semester 2016
Classes Begin....................................................... August 27
Labor Day/No Classes ........................................... September 5
College In-Service/No Classes ......................... November 23
Thanksgiving Break/No Classes ...................... November 24-27
Classes End .................................................. December 16

Winter Semester 2017
Classes Begin.................................................. January 7
Spring Break.................................................... March 4-10
College In-Service/No Classes ......................... March 30
Good Friday/No Classes .................................. April 14
Classes End .................................................... May 5
Commencement .............................................. May 6

Spring Semester 2017
Classes Begin................................................ May 15
Memorial Day/No Classes ................................ May 29
Independence Day /No Classes ....................... July 4
8-Week Classes End ......................................... July 7
12-Week Classes End ...................................... August 4

ADMISSIONS

“OPEN DOOR” ADMISSIONS POLICY
Mid Michigan Community College has an “open door” admissions policy which encourages admissions of all persons who have a sincere desire to study and apply themselves to gain full advantage of the benefits that 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 may be required by the transfer institution. Persons applying for financial aid must have a high school diploma or GED.

HOW TO APPLY
Applicants who have never attended another college or university:
1. Complete and submit an Application for Admission. This may be completed online at midmich.edu. This form should be completed and submitted well in advance of the semester for which the student is applying in order to allow time for assessment, academic advising, and class registration.
2. Have forwarded to the Admissions Office a copy of your high school transcript or GED completion for scholarship and grant consideration. A high school diploma is not required for general admission.

GUEST APPLICANTS
Complete and return a Guest Application. This may be obtained from the Admissions Office on either campus or online at midmich.edu. This form should be completed and submitted well in advance of the semester for which the student is applying to allow time for assessment, academic advising, and class registration. Guest students are not eligible for Title IV Federal Student Aid.

TRANSFER APPLICANTS
1. Complete and submit an Application for Admission. This may be completed online at www.midmich.edu. 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 if needed, academic advising, and class registration.
2. If you wish to have transfer credits posted on your MMCC transcript, have official copies of transcripts from all other college and universities forwarded to Enrollment Services.

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. A break in attendance of one years or more requires a new application to be completed. Official copies of transcripts from other colleges or universities attended during the interim should be forwarded to Enrollment 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 spring session.

Students wishing to enroll in this program should complete and return a Dual Enrollment Application that may be obtained from a high school counselor, the Admissions Office, or online at midmich.edu/dual.

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.

APPLICATIONS FOR HEALTH SCIENCES PROGRAMS

All MMCC Health Sciences programs require a program-specific application in addition to a regular MMCC admission application. The Nursing program requires that all prerequisites are completed prior to application. All other Health Sciences programs allow completion of prerequisites during the semester of application. In addition, all health career applicants are required to have a criminal background check including fingerprinting. By State law, students who have committed certain felonies and/or misdemeanors are NOT eligible for health care programs.

Students who are admitted to the program need to be aware that drug screens are required prior to entry into the program or clinicals depending on the program. Random drug screening may be done at any time during the program at the student’s expense.

The following programs have a limited enrollment: Medical Assistant, Magnetic Resonance Imaging, Nursing, Pharmacy Technician, Physical Therapist Assistant, and Radiography.

Information regarding the application process can be found on our website www.midmich.edu under Programs.

For further information about any health program, contact the Health Sciences Department at 989-386-6643.

INTERNATIONAL STUDENT ADMISSIONS

If you are an International Student who wishes to attend MMCC, we must receive the following documents before we can issue an I-20 Certificate of Eligibility:

1. An International Admissions Application. Please take care to supply your name exactly as it is printed on your passport.

2. If you plan to transfer credits from other colleges you must provide English translations of all college diplomas/transcripts. English translations can be obtained through World Education Services (WES) at your expense.

3. An appropriate TOEFL score (a minimum of 500 on paper-based tests, 173 on computer-based tests, or 61 for internet-based tests) or an ELS score of 109 or IELTS of 5.0.

4. A financial statement verifying financial resources sufficient to cover $25,109 USD for tuition and living expenses. Bank statements, affidavits of sponsorship, etcetera should be supplied to support the financial statement. If an applicant has made arrangements to reside with a friend or relative while attending the college, and can provide a signed Affidavit of Sponsorship from this sponsor, financial verification limits may be reduced to $15,912. It is very important for students and sponsors to fully evaluate financial resources before pursuing admission. MMCC has no grants, loans, or student employment available for international students. Based on F-1 visa requirements, international students are not eligible to work off-campus.

5. International Students must provide proof of health insurance coverage. For more information, contact Jim Kridler at international@midmich.edu, call 989-773-6622, ext. 258 or visit our website at www.midmich.edu, click on Future Students, then International Students.

FINANCIAL AID

Harrison Campus:
Phone 989-386-6664 Fax: 989-386-6613
Mt. Pleasant Campus:
Phone 989-773-6622, ext. 224 Fax: 989-772-2386
Email: finaid@midmich.edu

The MMCC financial aid office encourages all students to apply for federal financial aid by completing the Free Application for Federal Student Aid (FAFSA). You may apply online at www.fafsa.gov. Approximately 71% of all MMCC students carrying 6 credits or more receive some form of financial assistance. Financial aid programs offer all students the opportunity to pursue their educational goals. MMCC, along 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.

HOW TO APPLY FOR FINANCIAL AID

The Free Application for Federal Student Aid (FAFSA) is the first step in the financial aid process. This application can be submitted online at www.fafsa.gov or by mailing a paper FAFSA directly to the federal processor. The paper FAFSA may be obtained online at www.federalstudentaid.ed.gov.

Once a student’s financial aid has been completely processed they may charge their tuition, fees and books against eligible financial aid awards.

Students selected for verification may be required to submit documents to the MMCC Financial Aid Office. For those stu-
Students, MMCC must compare the information from the FAFSA to the applicable tax forms and other required documents. Financial aid will not be awarded until all required documents are provided. If it is determined that additional documents are required, financial aid previously awarded may be cancelled. Falsification of income information submitted for the purpose of receiving financial assistance will result in cancellation of all future assistance and repayment of all previously awarded financial aid. If federal and/or state funds are involved, the appropriate government agencies will be notified including the U.S. Department of Education, Michigan Higher Education Assistance Authority, and/or the Office of Inspector General. Students that are transferring to MMCC must add MMCC’s school code, 006768, to their FAFSA at www.fafsa.gov. Students must renew their FAFSA each year. Contact the financial aid office for spring and summer semester eligibility.

ELIGIBILITY FOR FEDERAL & STATE FINANCIAL AID PROGRAMS

To be eligible for federal and state financial aid, employment and student loan programs, students must meet all of the following requirements:

• Be admitted to or enrolled as a regular student in a qualified academic program leading to a degree or certificate.
• Be a U.S. citizen or an eligible noncitizen.
• Most males must be registered with Selective Service. Go to www.sss.gov to determine if you are or were required to register between age 18 and 25.
• Students cannot be in default on a federal student loan or owe money back on a federal student grant.
• Students who are enrolling in higher education for the first time on or after July 1, 2012, must have either a high school diploma or recognized equivalent (such as a General Educational Development certificate (GED) or have been home schooled).

Meet the MMCC Financial Aid requirements

• Make satisfactory academic progress.
• Meet any additional requirements for specific federal and state financial aid programs.
• Have financial need, except for some loan programs.
• Have a valid social security number.
• Complete and sign a Free Application for Federal Student Aid (FAFSA) stating that student financial aid will be used only to pay the cost of attending an institution of higher education.
• Cannot have a conviction for drug possession or sale while receiving financial aid.

HOW FINANCIAL NEED IS DETERMINED

Financial need is determined by subtracting a student’s Expected Family Contribution (EFC) from their MMCC cost of attendance budget. Additional information regarding MMCC’s cost of attendance and need based aid can be found on the Financial Aid page of college’s website at www.midmich.edu/finaid. MMCC must consider all sources of financial assistance and subtract the estimated amount of all assistance from the student’s estimated total financial need.

To determine a student’s eligibility for need-based assistance, MMCC must consider the student’s EFC. The EFC is calculated by the U.S. Department of Education from the information submitted in the student’s FAFSA. The EFC measures a family’s financial strength and determines the student’s eligibility for federal student aid. The MMCC financial aid office must use the EFC calculated by the U.S. Department of Education. However, when appropriate the MMCC financial aid office may make adjustments. Contact the MMCC financial aid office for more information.

FINANCIAL AID AWARDS AND PACKAGE

A student’s financial aid package may include all awards; scholarships, grants, work-study, and student loans. The awards are determined annually. The MMCC Financial Aid Office notifies students of the estimated financial aid that they are eligible for by mail or email. Financial aid awards are subject to change due to changes in the student’s enrollment, finances, or satisfactory academic progress. Changes in enrollment status, including a reduction of credit hours or withdrawing from all classes before the end of the semester may result in a reduction or cancellation of all financial aid. Students should check with the MMCC Financial Aid office before dropping classes. If a student or student’s family experience a change in financial circumstances, the student may contact the MMCC financial aid office to determine if an adjustment may be made to the student’s FAFSA.

DISBURSEMENT OF FINANCIAL AID AWARDS

All financial aid funds, scholarships, grants, and student loans are credited to the student’s account. If the student has any remaining funds, a refund will be issued to the student for the balance. Students can elect to sign up on MARS (Mid’s Automated Refund System) which is a free and convenient online service that allows students to select how they will receive their refund, including having it deposited directly into your bank account or getting it on a pre-loaded debit card. The direct link is located at www.paymentportal.pnc.com/mmcc. Students who do not take action will receive their refund as a check, delivered through standard mail (5-10 business days after the refund is issued). It is the student’s responsibility to verify the accuracy of the billing charges and credits and remaining financial aid balance. Refunds for remaining financial aid are available approximately six to eight weeks after the semester starts. Students should plan their personal finances with this time frame in mind. Checks are mailed and cannot be picked up on campus.
MMCC FINANCIAL AID SATISFACTORY ACADEMIC PROGRESS POLICY (SAP)

All students receiving financial aid from federal and state sources must be making satisfactory academic progress at Mid Michigan Community College. Students shall be monitored for satisfactory academic progress at the end of each semester (Fall, Winter, and Spring). There are three components that all students must be able to meet when evaluated: GPA, completion rate, and maximum time frame measures. The standards are established to ensure that students are progressing towards an educational objective and complete a degree within a reasonable time frame. If the standards are not met, students are not eligible for federal and state financial aid. Students are notified of their SAP status through their Mid Michigan Community College email account (Students who are meeting the SAP requirements will not receive notification.)

The standards of Satisfactory Academic Progress include the following components:

- Maintain a minimum cumulative grade point average. (GPA Measure)
- Complete minimum cumulative credit hours attempted – including all transfer credits. (Completion Rate)
- Attempt less than 150% total cumulative credits required for program degree of record–including all transfer credits. (Maximum Time Frame)

GRADES

All “F”, “W”, and “I” grades will be considered as credits attempted, but not completed. Transfer and remedial courses will be counted in attempted and completed credits. Repeated classes may count as only attempted hours. Credit hours taken for an audit grade of “AU” are not included in determining enrollment status for financial aid disbursement or satisfactory academic progress.

GPA MEASURE

Students must achieve a required minimum GPA. This required minimum GPA will be graduated based on the number of credits that the student has attempted and is listed below. All credits including developmental, and all transfer and college level courses will be counted to determine the credit hours.

<table>
<thead>
<tr>
<th>Credit Hours Attempted</th>
<th>Minimum Cumulative GPA</th>
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<tbody>
<tr>
<td>1-12</td>
<td>1.0</td>
</tr>
<tr>
<td>13-23</td>
<td>1.6</td>
</tr>
<tr>
<td>24-47</td>
<td>1.7</td>
</tr>
<tr>
<td>48 or more</td>
<td>2.0</td>
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</table>

COMPLETION RATE MEASURE

Students must complete a percentage of their attempted credits. This percentage will be cumulative and based on attempted credit hours (see below.)
a student’s control that contributed to the student’s failure to meet the minimum academic progress standards and (2) what corrective action has been taken to prohibit this from happening in the future. Students are notified of the appeal decision through their Mid Michigan Community College email account.

Examples of situations considered beyond a person’s control may include, but not limited to:

- Serious illness or injury to a student that required extended recovery time or significant improvement
- Death or serious illness of a family member
- Significant trauma in student's life that impaired the student's emotional and/or physical health
- Other documented situations (The appeal will be denied if documentation is not received within 30 days of the appeal date).

Students who have exceeded the maximum timeframe may appeal if they are within a reasonable timeframe of graduation or are pursuing a second degree by providing an explanation for the need of an additional degree.

Students who have borrowed funds from the Federal Direct Student Loan program, must complete “Exit Counseling” at www.studentloans.gov before their appeal will be considered.

As part of the appeal requirements, the student may be required to submit academic transcripts from all colleges attended or the appeal may not be considered. Student copies will be accepted in certain circumstances. If the student is unable to submit all transcripts then they must provide a written statement of explanation. Results of the transcripts or failure to provide transcripts, will factor into the decision of the FA Appeal Committee.

ACADEMIC PLANNING

1. The student will be required to meet with an academic advisor to develop an Academic Plan and submit it to the Financial Aid Office. As long as the student is meeting the terms of the plan, the student will continue on this status until he or she is able to meet SAP. Failure to meet the terms of the plan will result in an Ineligible status and cancellation of federal and state financial aid.

2. Students who have an Approved Appeal but fail to reenroll for one full academic year will return to an “Ineligible” status. Students will be notified by email of their change in status. Students must meet with a Financial Aid Officer and Academic Advisor before their appeal can be considered for reinstatement. The Financial Aid Committee has the right to deny an Approved Appeal on a case by case basis. Grounds for denial may include credit hours taken at another institution, change in program of study, or any unresolved issues that may prevent the student from achieving academic success.

APPEAL COMMITTEE

All appeals are reviewed by the Financial Aid Committee. The student will be notified in writing of the committee’s decision.

If the first appeal is denied and the student feels there are circumstances that were not considered in the first appeal, a second appeal may be made. Second appeals must be made in writing to the Director of Financial Aid, who will convene the Financial Aid Advisory Committee to review the appeal. The Director will inform the student of the Advisory Committee’s decision within ten business days. The Committee’s Decision will be considered to be final. The Financial Aid Advisory Committee is made up of the following membership: Dean of Student Services, Financial Aid Director, one Financial Aid Officer, one Admissions Office Representative, and one Faculty Member. A minimum of three members is required to review a student appeal.

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 and what resources (such as parental contribution, other financial aid, your assets, etc.) were considered in the calculation of your need.

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

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

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

8. 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.

9. 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. If you purposely give false or misleading information, you may be fined up to $20,000, sent to prison, or both.
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.

9. You must be attending your classes in order to be eligible for Federal Aid funding.

**MID MICHIGAN COMMUNITY COLLEGE  FINANCIAL AID PROGRAMS**

**Laker Distinction Presidential Scholarship:** This scholarship covers tuition and fees at MMCC for up to 62* credit hours, which is the average for an associates degree, and it is renewable for a second year. Distinguished Presidential Scholars will also receive a $500 stipend each semester to cover their required course books and supplies. Open to graduating Michigan seniors with cumulative GPA’s of 3.5 or higher. These competitive scholarships will select recipients based on character, leadership, service, and academic success. Learn more at midmich.edu/distinction

**Laker Distinction Scholarship:** This scholarship covers tuition and fees at MMCC for up to 31* credit hours, which is roughly one-half of an associates degree or one year of college at fulltime status. It is non-renewable. Open to graduating Michigan seniors with cumulative GPA’s of 3.5 or higher. These competitive scholarships will select recipients based on character, leadership, service, and academic success. Learn more at midmich.edu/distinction

*Both in and out-district students will have all tuition and fees covered fully.

**Admissions Award:** These scholarships for $1,000 ($500 fall/winter semesters) will be granted to students from local high schools who hold the highest GPA’s and attend MMCC. Admissions Awards are non-need-based and must be used for the semester for which they are awarded. Students should submit their transcripts with six completed semesters by April 1 in order to be considered.

**Ambassador Awards:** Recipients will receive roughly $1,000 each year ($500 fall/winter semesters). These two-year awards are distributed to students who will proudly represent MMCC through active service as college representatives. Recipients will complete service hours that vary depending on their skills but may include giving tours, presenting to potential students, assisting with office tasks, assisting in college events, etc.

**Technical Education Awards:** $500 scholarships ($250 fall/winter semesters) that will be granted to students who enroll in one of the following programs: Automotive Technology; Heating, Refrigeration & Air Conditioning; Industrial Technology/Drafting & Design; Industrial Technology/Machine Tool; Business Information Systems; Graphic Design; Welding Technology; or construction trades. Technical Education Awards are non-need-based, and distributed on a first come, first serve basis. High school seniors or alternative education students should submit their transcript with six completed semesters in order to qualify. Students who qualify for more than one institutional scholarship will be awarded the scholarship with the highest monetary amount.

**MMCC Scholarship and Grant Fund (Scholastic Incentive Scholarship):** This $300 merit-based scholarship is available to full-time students based on their cumulative GPA after completing a semester at full-time status. Students are only eligible for the scholarship once per academic year. This fund is made possible through financial gifts from friends of the College and the Scholarship & Grant Commission.

**Ellis VanDeventer Adult Incentive Award:** 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 scholarship awards. 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. Made possible through financial gifts from friends of the College and the Scholarship and Grant Commission.

**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.
Michigan Rehabilitation Services: Michigan Rehabilitation Services is a division of the Michigan Department of Human Services and provides rehabilitative services to vocationally handicapped or impaired individuals. Any person with impairment may make an application for service by contacting the Office of the State of Michigan Rehabilitation Services serving the student’s local area. 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.

Michigan Competitive Scholarships: These scholarships are credited to tuition and fees of Michigan residents of 12 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 ten semesters as long as need and at least a 2.0 GPA are maintained. More information is available from high school counselors and by contacting Student Scholarships & Grants, at 1-888-447-2687 or email osg@michigan.gov.

Tuition Incentive Program (TIP): This high school completion program offers to pay for the first two years of college and beyond for state identified students who graduate from high school or complete their GED before age 20. TIP covers up to 24 credit hours of tuition and most fees per year at Michigan Community Colleges and select Michigan Universities.

FEDERAL FINANCIAL AID PROGRAMS

Federal Pell Grants: Students may apply for Pell Grants by filing a FAFSA. Eligibility for Pell Grants is based on financial need as determined by the federal formula and is applied to all applicants. Awards for 2015-2016 range from $626-5,775 and are subject to change. The amount of the award will be adjusted based on the student’s actual enrollment status.

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. Students are paid once every two weeks for hours worked. Placement of students in FCWS employment is handled through the Admissions Office. Applications can be obtained online at www.midmich.edu/collegeworkstudy.

Federal Supplementary Educational Opportunity Grants (FSEOG) is a federal grant awarded to students with the greatest financial need according to the federal formula. The grants vary from $100 to $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.

William D. Ford Federal Direct Loan Program provides low-interest Stafford Student Loans directly from the Department of Education. Student loans are insured by the federal government. These loans are only to be used to finance the cost of education and must be repaid.

Subsidized Stafford Loans are based on financial need and the interest is paid by the government while the student is in school. Unsubsidized Stafford Loans are for students who do not qualify for Subsidized Stafford Loans or are borrowing more than the subsidized limits. Students are responsible for the interest from the time the loan is dispersed until the loan is paid in full. The interest rate is determined by federal regulation and may be paid monthly, quarterly, or capitalized. Capitalizing interest will increase the amount of loan the student will have to repay.

Loans are made in equal multiple disbursements throughout the academic loan period. The lender may charge up to 1.5% in fees on each loan disbursement. Students can receive a subsidized loan and an unsubsidized loan for the same enrollment period as long as the annual loan limits are not exceeded.

The annual loan limits for dependent students are:
- $5,500 for students with less than 24 completed credit hours. No more than $3,500 can be in Subsidized Stafford Loans.
- $6,500 for students with 24 or more completed credit hours. No more than $4,500 can be in Subsidized Stafford Loans.

Dependent students whose parents cannot borrow under the Federal PLUS loan program can borrow up to an additional $4,000 in additional unsubsidized loans.

The annual loan limits for independent students are:
- $9,500 for students with less than 24 completed credit hours. No more than $3,500 can be in Subsidized Stafford Loans.
- $10,500 for students with 24 or more completed credit hours. No more than $4,500 can be in Subsidized Stafford Loans.

For either type of Stafford loan, students must first fill out a FAFSA and provide the college all necessary forms to complete the financial aid file requirements. Students may be eligible for a Federal Direct Loan if they meet the requirements included in the Financial Aid Eligibility section and are enrolled at least half-time (6 credits). Students must complete all federal and school requirements such as completing Entrance Loan Counseling, a Master Promissory Note (MPN) and a Direct Loan Request Form. If the loan is approved, the borrower will receive a Disclosure Statement from the Department of Education listing the approved amount of the loan and the approximate date(s) the loan funds will be sent to the school.

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

In their last semester of attendance, students must complete Exit Counseling. Six months after a student is no longer enrolled
at least half-time, payment arrangements must be made with the loan servicer. Payment arrangements are subject to all of the following regulations:

1. The minimum monthly payment must be $50. Under unusual circumstances the loan servicer may permit reduced payments.
2. The standard repayment period is 10 years; however, there are other repayment options available for up to 25 years.
3. Repayment in whole or in part may be made at any time without penalty.

Students may be entitled to a temporary postponement of payments called a “deferment.” Loan Servicers have a complete listing of all authorized deferments and time limitations. This information may also be found on the student’s master promissory note.

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 student’s loan servicer may, 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 or federal funds; 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 Federal or State Financial Aid.

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 FAFSA. Parent PLUS loan eligibility is contingent upon credit history. Parents may borrow up to the remaining need of the dependent student cost of attendance minus other financial aid. PLUS loans are issued at a fixed interest rate and cannot exceed 7.21%. Parent PLUS loan funds are disbursed to the school at equal intervals within the loan period. Repayment on the PLUS loan normally begins within 60 days of disbursement, however payment deferment is available. Repayment terms are scheduled by the loan servicer and usually range from 5 to 10 years. In general, the minimum monthly payment is $50.

Veterans Administration benefits are available to veterans of the armed services and /or dependents/spouses of veterans. The following information references the veteran; however it is for all qualifying individuals. To qualify for VA benefits, veterans must apply online at www.gibill.va.gov. All students must complete the MMCC Admissions Application and then contact a MMCC VA Certifying Official. To ensure prompt receipt of VA payments, veterans must be registered for classes at least 30 days prior to start of each semester. To be eligible for maximum benefits, veterans must enroll full time each semester. Students enrolled less than full time are eligible for prorated payments. Veterans who have attended other schools beyond high school must have an official transcript from their previous school(s) sent to the MMCC Office of Enrollment Services for evaluation of possible transfer credit(s). MMCC will notify the US Department of Veterans Affairs and the veteran, of the credit(s) granted. In accordance with VA guidelines, veterans must make satisfactory academic progress towards their degree to continue receiving VA benefits. Veterans not meeting the minimum standards of the MMCC Financial Aid Satisfactory Academic Progress Policy will no longer be eligible to receive VA benefits. Veterans who have previously received VA benefits at other institutions must complete the “Change of Study/Program” form.

Michigan Children of Veterans Tuition Grant: Dependent children of deceased or disabled veterans whose injuries were a result of military service may be eligible for VA Benefits. Children must be between the ages of 18 and 23. They must be enrolled at least half-time and the amount will depend on enrollment status. Applications may be obtained online at https://www.michigan.gov/mistudentaid. Please contact the Financial Aid Office if you have difficulty locating the application. Students that are covered under any of the veteran’s programs must contact the Financial Aid Office each semester.

OTHER FINANCIAL AID PROGRAMS

Mid Michigan Community College uses an online resource to make it easier for our students to apply for various scholarships that are available. No more paper applications! Based on the information students provide in the online application, a tailored list of scholarships is produced. From this list, students may apply for scholarships of their choice. The online application is available each January 1 through April 1 for the upcoming academic year. Check the Financial Aid home page for more information at www.midmich.edu/finaid.

Availability of all scholarships listed is subject to change based upon minimum fund balances sufficient to make awards on deposit with MMCC.

Information about scholarships administered by MMCC can be found at www.midmich.edu/scholarships.

THE COST OF ATTENDING COLLEGE

TUITION RATES*

In-District Resident, Out-District Resident, and International rates are available on our website, and are charged per contact hour. Any individual using educational assistance under either Chapter 30 (Montgomery GI Bill® – Active Duty Program), Chapter 33 (Post-9/11 GI Bill®), of title 38, United States Code, and/or the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. § 3311(b)(9)) who lives in the State of Michigan while attending Mid Michigan Community College (regardless
of his/her formal state of residence) will be granted in-state tuition rates.

Once the student qualifies for in-state tuition, that status will continue while the student stays enrolled in the same degree program at MMCC. The in-state tuition rate would remain in effect even if the student’s military spouse or parents are transferred out of Michigan.

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

1. They are a 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 college district at the time of registration and are a United States citizen or permanent resident.

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 period immediately preceding registration; the tax receipt must show proof of payment of taxes in support of the College.

4. The student is an employee of a business or industrial firm or governmental agency or is a member of professional organization within the College district and the employer or organization, by written agreement, agrees to pay directly to the College all tuition and/or fees of a student for employer-approved courses.

5. Military personnel whose Home of Record or Legal Residence is within one of the public school districts of Beaverton, Clare, Farwell, Gladwin, or Harrison.


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

Students must verify residency at the time of each official registration by providing an appropriate document such as a driver’s license, voter registration card, Secretary of State Identification Card, or property tax receipt for the tax period immediately preceding registration, or by procedures as authorized by the President.

In addition, informational postcards will be mailed to the student’s address on our system using the “POSTMASTER DO NOT FORWARD” label. If a postcard is return to MMCC because the mail is undeliverable, future registrations will be billed at the out-of-district rate until the student proves residency.

**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 Library & Learning Services (LLS). (A complete listing of fees is available in the LLS).

Course Fees: Such fees are charged for selected courses to defray the cost of special equipment, facilities, materials and/or malpractice insurance.

Enrollment Fee: A non-refundable Enrollment Fee is required for each semester a student enrolls, with the amount based upon total hours taken. This fee reserves classes but does not apply to tuition. The fee schedule is as follows:

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

Non-Resident Student Facility Fee: A $10 per contact hour facility fee is charged to out-district students.

Student Activity Fee: A $30 fee is charged each semester to all students enrolling in 3 or more credit hours, except those who are dual enrolled at local high schools. The fee is non-refundable unless a total withdrawal is made within the 100% refund period.

Technology Fee: A $10 per contact hour fee is assessed on all courses, except those that are offered exclusively online and for which an online tuition rate is charged.
**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 (excluding the Enroll-ment Fee) based upon the date when a student withdraws from a course. During a 15-week semester, a full refund is allowed through the first 7 calendar days of the semester. 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. Library Learning Services courses and Independent Study courses shall be considered to be 15 weeks in length.

PERCENT OF TUITION AND FEE REFUND SCHEDULE

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<th>Calendar days beginning with and including first day of classes.</th>
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The date the drop is initiated will be counted as the date of refund. ENROLLMENT FEE IS NON-REFUNDABLE

RETURN OF TITLE IV FUNDS POLICY

Students that 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 and completes 30% of the semester will have “earned” only 30% of any Title IV aid they are entitled to. The school and/or the student must return the remaining 70%. Students considering withdrawal from all classes PRIOR to completing 60% of the semester are strongly encouraged to contact the Financial Aid Office to determine how withdrawal will affect current and future financial aid.

1. This policy applies to all students who withdraw, drop out, unofficially withdraw, receive all F’s and/or W’s, or are expelled from MMCC and receive financial aid from Title IV funds:

A. Title IV Funds include Federal financial aid programs authorized under the Higher Education Act of 1965, as amended, and includes the following programs: Federal Direct Loans including Stafford Unsubsidized, Stafford Subsidized, and PLUS Loans, Federal Pell Grants, and Federal SEOG.

B. A student’s official withdrawal date is the date the student began the institution’s withdrawal process as defined in the MMCC Catalog, officially notified the institution of intent to withdraw, or the midpoint of the period for a student who leaves without notifying the institution, or the student’s last date of attendance at a documented academically related activity.

2. 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 60% of the semester is complete.

A. When the total amount of unearned aid is greater than 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. PLUS - Parent Loans to Undergraduate*
4. Federal Pell Grant
5. Federal SEOG

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

3. A notice of the refund calculation will be sent to the students MMCC email following the withdrawal or after grades are submitted at the end of the semester. A copy of the calculation is available upon request.

A. Students are responsible for any portion of their institutional charges that the college has to return to the federal aid program. Repayment arrangements may be made with the MMCC Business Office within fourteen days to avoid further action.

B. Students who owe unearned grant aid directly to the federal program may repay the college within fourteen days to avoid losing Title IV eligibility and being turned over to the U.S. Department of Education (FSA) Collection Division.

4. If you did not receive all of the funds that you earned, you may be due a post-withdrawal disbursement. If the post-withdrawal disbursement includes loan funds, you must notify MMCC that you wish to receive the loan funds. MMCC may automatically use all or a portion of your post-withdrawal disbursement including loan funds, if you accept them for current year tuition and fees. For all other school charges, the school needs your permis-
Mid Michigan Community College offers training credentials, certificates and associate degrees. Also available are transfer programs and career programs. Transfer programs are planned for students intending to transfer credits earned at Mid Michigan Community College to another institution. Transfer guides for many institutions are available on the college’s transfer website at www.midmich.edu/transfer. 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) and to the Michigan Transfer Agreement (MTA). Students may meet MACRAO or MTA agreement requirements without obtaining an Associate degree. (Only students who began collegiate level coursework prior to Fall Semester 2014 will be able to complete the MACRAO requirements; such students may choose to complete the MTA requirements. Students who begin collegiate level coursework beginning Fall Semester 2014 will not be eligible for a MACRAO endorsement.)

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.

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

Any student who enrolls in an associate degree program at MMCC is required to fulfill the competencies of the General Education program for that degree. General Education requirements may be met by completing the required course work, meeting equivalent competency (as stated below) or through Credit by Examination.

### General Education for Associate in Applied Sciences and Associate in Nursing Degrees

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

#### Level II: HUM 200, SCI 200, and SSC 200 or their respective equivalents

SCI 200 -or- 7 hrs in Science with coursework from two different course designators (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 insti-
tuition will be exempt from 100 Level General Education requirements with the exception of math. 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 with the exception of math.

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

GENERAL EDUCATION FOR ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

The Associate in Arts and Associate in Science Degrees are intended for students planning to transfer to a four-year college or university. Beginning in the 2014-2015 academic year, these degrees were redesigned to coordinate the General Education goals of each with the requirements of the Michigan Transfer Agreement. The coursework for General Education in the transfer degrees is as follows:

Communication Skills: Three courses -- ENG 111, ENG 222, and either SPE 101 or SPE 257

Quantitative Reasoning: One of the following -- MAT 107, MAT 114, or MAT 212. Any of the following can substitute for MAT 107 in this requirement: MAT 124, 126, 225, 226, or 230.

Natural Science: Two courses, each from a different subject area from the Natural Science Designated MTA list.

Social Science: Two courses, each from a different subject area, from the Social Science Designated MTA list.

Humanities: Two courses, each from a different subject area, from the Humanities Designated MTA list.

The MTA Designated course lists were compiled based on transferability and suitability as part of a collegiate curricular core; they will be reviewed and updated on a regular basis. The courses are:

English Composition -- ENG 111

Communication -- ENG 222, SPE 101, SPE 257

Mathematics -- Either MAT 114, MAT 212, or one of the following: MAT 107, 118, 124, 126, 212, 217, 218, 225, 226, 230


Social Science -- ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200

Humanities -- ENG 112, 201, 202, 205, 206, 213, 289; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 102, 183, 200, 205, 210, 225, 253; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275

Credits transferred from other MTA granting institutions that have no direct equivalent to the above, but are granted departmental elective credit in one of the above areas, will also be eligible for application towards an MTA Endorsement from MMCC.

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 104, 110, 111, 222, 225, Journalism, Speech

II Science and Mathematics
   Mathematics: Mathematics
   Natural Science: Biology
   Physical Science: Chemistry, Computer Science (CIS 110, 111, 151, 152, 175, 176), Geology, Physical Science, Physics, Science

III Social Science
   Anthropology, Economics, History 211, 212, 223, 251, 252, MID 103, 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, 289, French, German, History 101, 102, Humanities, Japanese, MUS 275, Philosophy, Religion, Spanish, TAI 275

V Applied Arts & Sciences

VI Health/Physical Education
   Health Education, Physical Education

VII Education
   Elementary Education, Secondary Education

VIII Personal Development
   MID Courses
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 that 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;
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 credit hours must be taken at MMCC.

MMCC will automatically verify MACRAO requirements and post a MACRAO training credential to the transcript if applicable, whenever a student completes a Graduation Application or Transcript Request Form.

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

Beginning with Fall Semester 2014, the MACRAO agreement is being replaced by the Michigan Transfer Agreement. Students who have begun collegiate level coursework prior to Fall Semester 2014 will have until the beginning of Fall Semester 2019 to complete the requirements for the MACRAO endorsement. Students who begin coursework with the Fall Semester 2014 will be expected to pursue completion of the Michigan Transfer Agreement (MTA).

MICHIGAN TRANSFER AGREEMENT

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of coursework in general education areas. If a student has successfully completed the appropriate coursework, that student's transcript will be marked "MTA Satisfied". Participating four year colleges and universities will accept that as completion of 30 credits towards their general education requirements. (NOTE: Not all four year colleges and universities participate in MTA. Students intending to transfer should contact their intended transfer institution.) The MTA requires that colleges list coursework which is applicable. The following are MMCC's Designated MTA courses (by MTA area):

Designated MTA courses -- each course must be completed with a minimum grade of C

English Composition: ENG 111
Communication: Either ENG 222, SPE 101, or SPE 257
Mathematics: Either MAT 114, MAT 212, or one of the following: MAT 107, 118, 124, 126, 212, 217, 218, 225, 226, 230
Natural Science: Two of the following, each from a different subject area: BIO 100, 101, 131, 135, 141, 142, 201, 203, 210, 245; CHM 105, 106, 111, 112, 241, 242; GEL 101, 112; PHY 105, 211; PSC 101, 102; SCI 200. At least one must be a laboratory science.
Social Science: Two of the following, each from a different subject area: ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200
Humanities: Two of the following, each from a different subject area: ENG 112, 201, 202, 205, 206, 213, 289; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 183, 200, 205, 210, 225, 253; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275

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 circumstances sometimes 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 go to MidWeb on the College website for course offering information.
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- Visual Arts ............................................................................................ 28

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- Business Information Systems ................................................................. 36
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- Computer Information Systems ................................................................. 40
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- General Technology .............................................................................. 46
- Graphic Design ..................................................................................... 48
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- Records Information Management Specialist (TC) ............................. 99
ASSOCIATE IN ARTS: BUSINESS STUDIES TRANSFER

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program. A minimum of 15 credit hours must consist of 200 level coursework.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3 3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td>ENG 222</td>
<td>3 3</td>
<td>Expository Writing &amp; Research</td>
<td>Minimum grade of “C” in ENG 111</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3 3</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3 3</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

**Communication Skills (Group I) - 9 credit hours**

**Science and Mathematics (Group II) – 10 credit hours**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 107*</td>
<td>3 3</td>
<td>College Algebra</td>
<td>Minimum grade of “C” in MAT 105 or equivalent</td>
</tr>
<tr>
<td>OR MAT 114</td>
<td>3 3</td>
<td>Mathematical Literacy</td>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>3 3</td>
<td>Introduction to Probability and Statistics</td>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 124, 126, 225, 226, and 230 also satisfy this requirement. Other MAT courses do not.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Social Sciences (Group III) - 9 credit hours**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201</td>
<td>3</td>
<td>Principles of Economics (Macro)</td>
<td></td>
</tr>
<tr>
<td>ECO 202</td>
<td>3</td>
<td>Principles of Economics (Micro)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Select from Designated MTA Social Science list</td>
<td>NOTE: Course cannot be ECO</td>
</tr>
</tbody>
</table>

**Humanities (Group IV) - 6 credit hours**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td>Two courses selected from the Designated MTA Social Science list</td>
<td>NOTE: Courses cannot be from same discipline.</td>
</tr>
</tbody>
</table>

**Program Electives - 13 credits from ACC, BUS, CIS or BIS only**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Elective (ACC, BUS, CIS or BIS only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective (ACC, BUS, CIS or BIS only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective (ACC, BUS, CIS or BIS only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective (ACC, BUS, CIS or BIS only)</td>
<td></td>
</tr>
</tbody>
</table>

**Electives – credits to reach minimum of 62**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Elective</td>
<td></td>
</tr>
</tbody>
</table>

Maximum of 6 credit hours from HED or PED. EDU, MID, and courses below 100 level are not applicable.

Students are encouraged to meet with an Academic Advisor to select courses that are appropriate for academic and career goals. Distribution Group and Designated MTA course lists on reverse (print version) or page two (digital version)
ASSOCIATE IN ARTS:  
BUSINESS STUDIES TRANSFER

GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

Students completing transfer degrees are required to complete the following:

- Communication Skills: Three courses -- ENG 111, ENG 222, and either SPE 101 or SPE 257
- Quantitative Reasoning: One of the following -- MAT 107, MAT 114, or MAT 212
- Natural Science: Two courses from the MTA list below, each from a different subject area.
- Social Science: Two courses from the MTA list below, each from a different subject area.
- Humanities: Two courses from the MTA list below, each from a different subject area.

MICHIGAN TRANSFER AGREEMENT

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of coursework in general education areas. If a student has successfully completed the appropriate coursework, that student’s transcript will be marked “MTA Satisfied”. Participating four year colleges and universities will accept that as completion of 30 credits toward their general education requirements. (NOTE: Not all four year colleges and universities participate in MTA. Students intending to transfer should contact their intended transfer institution.) The MTA requires that colleges list coursework which is applicable. The following are MMCC’s Designated MTA courses (by MTA area):

Designated MTA courses -- each course must be completed with a minimum grade of C

<table>
<thead>
<tr>
<th>Designated MTA Courses</th>
<th>MTA Course Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>ENG 111</td>
</tr>
<tr>
<td>Communication</td>
<td>Either ENG 222, SPE 101, or SPE 257</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Either MAT 114, MAT 212, or one of the following: MAT 107, 124, 126, 212, 225, 226, 230</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Two of the following, each from a different subject area: BIO 100, 101, 131, 135, 138, 141, 142, 201, 203, 210, 245; CHM 105, 106, 111, 112, 241, 242, 245, 246, 255, 256; GEL 101, 112; PHY 105, 211; SCI 101, 102; SCI 200. At least one must be a laboratory science.</td>
</tr>
<tr>
<td>Social Science</td>
<td>Two of the following, each from a different subject area: ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200</td>
</tr>
<tr>
<td>Humanities</td>
<td>Two of the following, each from a different subject area: ENG 112, 201, 202, 205, 206, 213, 289; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 102, 183, 200, 205, 210, 225, 253; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275</td>
</tr>
</tbody>
</table>

If necessary, additional Designated MTA courses to total or exceed 30 credit hours.

DISTRIBUTION GROUPS

Group I - Communication Skills: ENG (104, 110, 111, 222, 225), JOR, SPE

Group II - Science and Mathematics: BIO, CHM, CIS (110, 111, 121, 131, 151, 152, 175, 176), GEL, PSC, PHY, SCI; MAT

Group III - Social Science: ANT, ECO, HIS (211, 212, 223, 251, 252), POL, PSY, SSC, SOC

Group IV - Humanities and Fine Arts: Humanities -- ENG (112, 201, 202, 205, 206, 211, 212, 213, 281), FRN, GER, HIS (101, 102), HUM, JPN, MUS (275), PHL, REL, SPN, TAI (275); Fine Arts -- ART, MUS (except 275), TAI (except 275)

Group V - Applied Arts & Sciences: ACC, ALH, AMS, BUS, BIS, ECE, CIS (except 110, 111, 121, 131, 151, 152, 175, 176), CST, CIS, DRF, ENT, HRA, IND, LEN, NUR, MRI, PHT, PLT, PTA, RAD, WLD

Group VI - Health/Physical Education: HED, PED

Group VII - Education: EDU

Group VIII - Personal Development: MID

23
ASSOCIATE IN ARTS:
CRIMINAL JUSTICE – LAW ENFORCEMENT TRANSFER

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program. A minimum of 15 credit hours must consist of 200 level coursework.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course Title Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course #</td>
<td>Contact/Billing Hours</td>
</tr>
<tr>
<td>Communication Skills (Group I) - 9 credit hours</td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>3 3</td>
</tr>
<tr>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
<td></td>
</tr>
<tr>
<td>MAT 107*</td>
<td>3 3</td>
</tr>
<tr>
<td>Minimum grade of “C” in MAT 105 or equivalent</td>
<td></td>
</tr>
<tr>
<td>OR MAT 114</td>
<td>3 3</td>
</tr>
<tr>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
<td></td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>3 3</td>
</tr>
<tr>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
<td></td>
</tr>
</tbody>
</table>

Science and Mathematics (Group II) – 10 credit hours

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course Title Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course #</td>
<td>Contact/Billing Hours</td>
</tr>
<tr>
<td>Social Sciences (Group III) - 6 credit hours</td>
<td></td>
</tr>
<tr>
<td>MAT 124, 126, 225, 226, and 230 also satisfy this requirement. Other MAT courses do not.</td>
<td></td>
</tr>
<tr>
<td>Two courses selected from the Designated MTA</td>
<td>NOTE: Courses cannot be from same discipline.</td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>3 3</td>
</tr>
<tr>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
<td></td>
</tr>
</tbody>
</table>

Social Sciences (Group III) - 6 credit hours

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course Title Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course #</td>
<td>Contact/Billing Hours</td>
</tr>
<tr>
<td>Humanities (Group IV) - 6 credit hours</td>
<td></td>
</tr>
<tr>
<td>Two courses selected from the Designated MTA</td>
<td>NOTE: Courses cannot be from same discipline.</td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>3 3</td>
</tr>
<tr>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
<td></td>
</tr>
</tbody>
</table>

Humanities (Group IV) - 6 credit hours

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course Title Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice and Applied Science Courses - 15 credit hours</td>
<td></td>
</tr>
<tr>
<td>Minimum of 9 hours in CJS required) Students should select CJS courses in conjunction with an advisor to develop a plan that best meets the requirements of their chosen transfer institution.</td>
<td></td>
</tr>
<tr>
<td>CJS Elective</td>
<td></td>
</tr>
<tr>
<td>Applied Science Elective (Group V)</td>
<td></td>
</tr>
<tr>
<td>Applied Science Elective (Group V)</td>
<td></td>
</tr>
<tr>
<td>Electives – credits to reach minimum of 62</td>
<td></td>
</tr>
<tr>
<td>Choose from Group III, IV, V and VI (PED 255 recommended)</td>
<td></td>
</tr>
<tr>
<td>NOTE: 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 (MCOLES). After completion of the CJS associate program, students take and pass the MCOLES pre-employment reading/writing test and a physical skills test before entering a college MCOLES approved Police Academy.</td>
<td></td>
</tr>
</tbody>
</table>

Students are encouraged to meet with an Academic Advisor to select courses that are appropriate for academic and career goals. Distribution Group and Designated MTA course lists on reverse (print) or page two (digital).
ASSOCIATE IN ARTS:
CRIMINAL JUSTICE LAW ENFORCEMENT TRANSFER

GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

Students completing transfer degrees are required to complete the following:

- **Communication Skills**: Three courses -- ENG 111, ENG 222, and either SPE 101 or SPE 257
- **Quantitative Reasoning**: One of the following -- MAT 107, MAT 114, or MAT 212
- **Natural Science**: Two courses from the MTA list below, each from a different subject area.
- **Social Science**: Two courses from the MTA list below, each from a different subject area.
- **Humanities**: Two courses from the MTA list below, each from a different subject area.

MICHIGAN TRANSFER AGREEMENT

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of course work in general education areas. If a student has successfully completed the appropriate coursework, that student's transcript will be marked "MTA Satisfied". Participating four year colleges and universities will accept that as completion of 30 credits toward their general education requirements. (NOTE: Not all four year colleges and universities participate in MTA. Students intending to transfer should contact their intended transfer institution.) The MTA requires that colleges list coursework which is applicable. The following are MMCC’s Designated MTA courses (by MTA area):

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<thead>
<tr>
<th>Designated MTA courses -- each course must be completed with a minimum grade of C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Composition</strong></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
</tr>
<tr>
<td><strong>Natural Science</strong></td>
</tr>
<tr>
<td><strong>Social Science</strong></td>
</tr>
<tr>
<td><strong>Humanities</strong></td>
</tr>
</tbody>
</table>

If necessary, additional Designated MTA courses to total or exceed 30 credit hours.

DISTRIBUTION GROUPS

- **Group I - Communication Skills**: ENG (104, 110,111, 222, 225), JOR, SPE
- **Group II - Science and Mathematics**: BIO, CHM, CIS (110, 111, 121, 131, 151, 152, 175, 176), GEL, PSC, PHY, SCI; MAT
- **Group III - Social Science**: ANT, ECO, HES, HIS (211, 212, 223, 251, 252), POL, PSY, SSC, SOC
- **Group IV - Humanities and Fine Arts**: Humanities -- ENG (112, 201, 202, 205, 206, 211, 212, 213, 281), FRN, GER, HIS (101, 102), HUM, JPN, MUS (275), PHL, REL, SPN, TAI (275); Fine Arts -- ART, MUS (except 275), TAI (except 275)
- **Group V - Applied Arts & Sciences**: ACC, ALH, AMS, BUS, BIS, ECE, CIS (except 110, 111, 121, 131, 151, 152, 175, 176), CST, CJS, DRF, ENT, HRA, IND, LEN, NUR, MRI, PHT, PLT, PTA, RAD, WLD
- **Group VI - Health/Physical Education**: HED, PED
- **Group VII - Education**: EDU
- **Group VIII - Personal Development**: MID
ASSOCIATE IN ARTS: LIBERAL STUDIES TRANSFER

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program. A minimum of 15 credit hours must consist of 200 level coursework.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills (Group I) - 9 credit hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ ENG 111</td>
<td>3 3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
<td></td>
</tr>
<tr>
<td>☐ ENG 222</td>
<td>3 3</td>
<td>Expository Writing &amp; Research</td>
<td>Minimum grade of “C” in ENG 111</td>
<td></td>
</tr>
<tr>
<td>☐ SPE 101</td>
<td>3 3</td>
<td>Fundamentals of Communication</td>
<td></td>
<td></td>
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<tr>
<td>OR SPE 257</td>
<td>3 3</td>
<td>Public Speaking</td>
<td></td>
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</tr>
<tr>
<td>Science and Mathematics (Group II) – 10 credit hours</td>
<td></td>
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</tr>
<tr>
<td>☐ MAT 107</td>
<td>3 3</td>
<td>College Algebra</td>
<td>Minimum grade of “C” in MAT 105 or equivalent</td>
<td></td>
</tr>
<tr>
<td>OR MAT 114</td>
<td>3 3</td>
<td>Mathematical Reasoning</td>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
<td></td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>3 3</td>
<td>Introduction to Probability and Statistics</td>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
<td></td>
</tr>
<tr>
<td>Social Sciences (Group III) - 9 credit hours</td>
<td></td>
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</tr>
<tr>
<td>☐ *MAT 124, 126, 225, 226, and 230 also satisfy this requirement. Other MAT courses do not.</td>
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</tr>
<tr>
<td>☐ Two courses selected from the Designated MTA Natural Science list</td>
<td>NOTE: Courses cannot be from same discipline.</td>
<td></td>
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<tr>
<td>Humanities (Group IV) - 9 credit hours (at least 3 credits at the 200 level)</td>
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<td></td>
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</tr>
<tr>
<td>☐ Two courses selected from the Designated MTA Humanities list</td>
<td>NOTE: Courses cannot be from same discipline.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Group IV Humanities/Fine Arts Elective</td>
<td></td>
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</tr>
<tr>
<td>Electives - credits to reach minimum of 62</td>
<td></td>
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<tr>
<td>☐ Elective</td>
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<td>☐ Elective</td>
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</tr>
</tbody>
</table>

Students are encouraged to meet with an Academic Advisor to select courses that are appropriate for academic and career goals. Distribution Group and Designated MTA course lists on reverse (print version) or page two (digital version)
ASSOCIATE IN ARTS:
LIBERAL STUDIES TRANSFER

GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

Students completing transfer degrees are required to complete the following:

Communication Skills: Three courses -- ENG 111, ENG 222, and either SPE 101 or SPE 257

Quantitative Reasoning: One of the following -- MAT 107, MAT 114, or MAT 212

Natural Science: Two courses from the MTA list below, each from a different subject area.

Social Science: Two courses from the MTA list below, each from a different subject area.

Humanities: Two courses from the MTA list below, each from a different subject area.

MICHIGAN TRANSFER AGREEMENT

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of course work in general education areas. If a student has successfully completed the appropriate coursework, that student's transcript will be marked "MTA Satisfied". Participating four year colleges and universities will accept that as completion of 30 credits towards their general education requirements. (NOTE: Not all four year colleges and universities participate in MTA. Students intending to transfer should contact their intended transfer institution.) The MTA requires that colleges list coursework which is applicable. The following are MMCC's Designated MTA courses (by MTA area):

Designated MTA courses -- each course must be completed with a minimum grade of C

<table>
<thead>
<tr>
<th>Category</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>ENG 111</td>
</tr>
<tr>
<td>Communications</td>
<td>Either ENG 222, SPE 101, or SPE 257</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Either MAT 114, MAT 212, or one of the following : MAT 107, 124, 126, 212, 225, 226, 230</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Two of the following, each from a different subject area: BIO 100, 101, 131, 135, 138, 141, 142, 201, 203, 210, 245; CHM 105, 106, 111, 112, 241, 242, 245, 246, 255, 256; GEL 101, 112; PHY 105, 211; PSC 101, 102; SCI 200. At least one must be a laboratory science.</td>
</tr>
<tr>
<td>Social Science</td>
<td>Two of the following, each from a different subject area: ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200</td>
</tr>
<tr>
<td>Humanities</td>
<td>Two of the following, each from a different subject area: ENG 112, 201, 202, 205, 206, 213, 289; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 102, 183, 200, 205, 210, 225, 253; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275</td>
</tr>
</tbody>
</table>

If necessary, additional Designated MTA courses to total or exceed 30 credit hours.

DISTRIBUTION GROUPS

Group I - Communication Skills: ENG (104, 110,111, 222, 225), JOR, SPE

Group II - Science and Mathematics: BIO, CHM, CIS (110, 111, 121, 131, 151, 152, 175, 176), GEL, PSC, PHY, SCI; MAT

Group III - Social Science: ANT, ECO, HES, HIS (211, 212, 223, 251, 252), POL, PSY, SSC, SOC

Group IV - Humanities and Fine Arts: Humanities -- ENG (112, 201, 202, 205, 206, 211, 212, 213, 281), FRN, GER, HIS (101, 102), HUM, JPN, MUS (275), PHL, REL, SPN, TAI (275); Fine Arts -- ART, MUS (except 275), TAI (except 275)

Group V - Applied Arts & Sciences: ACC, ALH, AMS, BUS, BIS, ECE, CIS (except 110, 111, 121, 131, 151, 152, 175, 176), CST, CJS, DRF, ENT, HRA, IND, LEN, NUR, MRI, PHT, PLT, PTA, RAD, WLD

Group VI - Health/Physical Education: HED, PED

Group VII - Education: EDU

Group VIII - Personal Development: MID
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program. A minimum of 15 credit hours must consist of 200 level coursework.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course #</td>
<td>Course Title</td>
<td></td>
</tr>
</tbody>
</table>

### Communication Skills (Group I) - 9 credit hours

- ENG 111 3 3 Freshman English Composition
  - Placement into ENG 111 or ENG 110 with a minimum grade of “C”
- ENG 222 3 3 Expository Writing & Research
  - Minimum grade of “C” in ENG 111
- SPE 101 3 3 Fundamentals of Communication
  - OR SPE 257 3 3 Public Speaking

### Science and Mathematics (Group II) – 10 credit hours

- MAT 107* 3 3 College Algebra
  - Minimum grade of “C” in MAT 105 or equivalent
- OR MAT 114 3 3 Mathematical Reasoning
  - Minimum grade of “C” in MAT 104 or equivalent
- OR MAT 212 3 3 Introduction to Probability and Statistics
  - Minimum grade of “C” in MAT 104 or equivalent

*MAT 124, 126, 225, 226, and 230 also satisfy this requirement. Other MAT courses do not.

- Two courses selected from the Designated MTA
  - Natural Science list
  - NOTE: Courses cannot be from same discipline.

### Social Sciences (Group III) - 6 credit hours

- Two courses selected from the Designated MTA
  - Social Science list
  - NOTE: Courses cannot be from same discipline.

### Fine Arts and Humanities - 34 credit hours

- ART 105 3 3 Drawing I - Introductory
- ART 115 3 3 Design I
- HUM 101 3 3 World of Creativity I
- HUM 102 3 3 World of Creativity II
- ART 241 1 1 Portfolio
  - Permission of instructor

- One course selected from the Designated MTA Humanities list
  - NOTE: Selection cannot carry HUM department designator

### ART electives - 18 credit hours

Select from: ART 110, 130, 135, 137, 152, 205, 206, 210, 211, 215, 230, 235, 236, 237, 239, 240, 247, 252, 253, 254, 256, or 280. (See MMCC catalog for pre-requisite information.)

- ART Elective
- ART Elective
- ART Elective
- ART Elective
- ART Elective
- ART Elective

### Electives - credits to reach minimum of 62

Maximum of 2 credit hours from HED or PED. MID courses and courses numbered below the 100 level are not applicable.

- Elective
- Elective

Students should consult with an Academic Advisor to select courses appropriate for academic and career goals. General Education Intensive and Designated MTA course lists on reverse (print version) or page two (digital version).
ASSOCIATE IN ARTS: VISUAL ARTS

GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

Students completing transfer degrees are required to complete the following:

- Communication Skills: Three courses -- ENG 111, ENG 222, and either SPE 101 or SPE 257
- Quantitative Reasoning: One of the following -- MAT 107, MAT 114, or MAT 212
- Natural Science: Two courses from the MTA list below, each from a different subject area.
- Social Science: Two courses from the MTA list below, each from a different subject area.
- Humanities: Two courses from the MTA list below, each from a different subject area.

MICHIGAN TRANSFER AGREEMENT

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of course work in general education areas. If a student has successfully completed the appropriate coursework, that student's transcript will be marked "MTA Satisfied". Participating four year colleges and universities will accept that as completion of 30 credits towards their general education requirements. (NOTE: Not all four year colleges and universities participate in MTA. Students intending to transfer should contact their intended transfer institution.) The MTA requires that colleges list coursework which is applicable. The following are MMCC's Designated MTA courses (by MTA area):

Designated MTA courses -- each course must be completed with a minimum grade of C

| English Composition | ENG 111 |
| Communication       | Either ENG 222, SPE 101, or SPE 257 |
| Mathematics         | Either MAT 114, MAT 212, or one of the following : MAT 107, 124, 126, 212, 225, 226, 230 |
| Natural Science     | Two of the following, each from a different subject area: BIO 100, 101, 131, 135, 138, 141, 142, 201, 203, 210, 245; CHM 105, 106, 111, 112, 241, 242, 245, 246, 255, 256; GEL 101, 112; PHY 105, 211; PSC 101, 102; SCI 200. At least one must be a laboratory science. |
| Social Science      | Two of the following, each from a different subject area: ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200 |
| Humanities          | Two of the following, each from a different subject area: ENG 112, 201, 202, 205, 206, 213, 289; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 102, 183, 200, 205, 210, 225, 253; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275 |

If necessary, additional Designated MTA courses to total or exceed 30 credit hours.

DISTRIBUTION GROUPS

- Group I - Communication Skills: ENG (104, 110,111, 222, 225), JOR, SPE
- Group II - Science and Mathematics: BIO, CHM, CIS (110, 111, 121, 131, 151, 152, 175, 176), GEL, PSC, PHY, SCI; MAT
- Group III - Social Science: ANT, ECO, HIS (211, 212, 223, 251, 252), POL, PSY, SSC, SOC
- Group IV - Humanities and Fine Arts: Humanities -- ENG (112, 201, 202, 205, 206, 211, 212, 213, 281), FRN, GER, HIS (101, 102), HUM, JPN, MUS (275), PHL, REL, SPN, TAI (275); Fine Arts -- ART, MUS (except 275), TAI (except 275)
- Group V - Applied Arts & Sciences: ACC, ALH, AMS, BUS, BIS, ECE, CIS (except 110, 111, 121, 131, 151, 152, 175, 176), CST, CIS, DRF, ENT, HRA, IND, LEN, NUR, MRI, PHT, PLT, PTA, RAD, WLD
- Group VI - Health/Physical Education: HED, PED
- Group VII - Education: EDU
- Group VIII - Personal Development: MID
ASSOCIATE IN APPLIED SCIENCE
ACCOUNTING

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication Skills (Group I) - 6 credit hours</strong></td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>3 3 Freshman English Composition Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3 3 Fundamentals of Communication</td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3 3 Public Speaking</td>
</tr>
</tbody>
</table>

| **Science and Mathematics (Group II) – 6 credit hours** |
| MAT 105 | 3 3 Intermediate Algebra OR MAT 104 or equivalent |
| OR MAT 116 | 3 3 Business Math I Minimum grade of “C” in MAT 105 or equivalent |
| SCI 200 | 3 4 Science, Technology & Society ENG 111 and either SPE 101 or 257 (minimum grade of "C" in each) |

| **Social Sciences (Group III) - 3 credit hours** |
| SSC 200 | 3 3 The Social Sciences & Contemporary America ENG 111 and either SPE 101 or 257 (minimum grade of "C" in each) |

| **Humanities and Fine Arts (Group IV) - 3 credit hours** |
| HUM 200 | 3 3 Modernity & Culture ENG 111 and either SPE 101 or 257 (minimum grade of "C" in each) |
| OR HUM 253 | 3 3 American Culture ENG 111 and either SPE 101 or 257 (minimum grade of "C" in each) |

| **Applied Arts and Sciences (Group V) - 44 credit hours** |
| CIS 100 | 3 3 Introduction to Information Systems Touch keyboarding skills recommended |
| ACC 201 | 4 4 Financial Accounting |
| ACC 205 | 3 4 Payroll Accounting ACC 201 recommended |
| ACC 211 | 4 4 Managerial Accounting Minimum grade of “C” in ACC 201 |
| ACC 231 | 3 3 Principles of Cost Accounting ACC 211 |
| ACC 251 | 3 3 Tax Accounting I ACC 201 recommended |
| ACC 252 | 3 3 Tax Accounting II ACC 251 |
| ACC 261 | 3 3 Computerized Accounting CIS 130, ACC 211 |
| ACC 280 | 3 3 Co-op Accounting Completed at least 45 credit hours in the Accounting Program |
| BIS 264 | 3 3 Business Communications II BIS 164 or ENG 111 |
| BUS 151 | 3 3 Introduction to Business Issues |
| BUS 153 | 3 3 Business Law |
| BUS 255 | 3 3 Entrepreneurial Finance |
| CIS 130 | 3 3 Applications with Microcomputers Minimum grade of “C” in CIS 100 |

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
Suggested Sequence of Courses

FIRST SEMESTER
ACC 201
BUS 153

SECOND SEMESTER
ACC 211
BUS 255
CIS 130
BUS 151

THIRD SEMESTER
ACC 205
ACC 251
ACC 261

FOURTH SEMESTER
ACC 231
ACC 252
ACC 280
ASSOCIATE IN APPLIED SCIENCE
AUTOMOTIVE TECHNOLOGY

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 69 credits is required to complete this program.

### Credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>SPE 101</td>
<td>Fundamentals of Communication OR Public Speaking</td>
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</tr>
<tr>
<td>OR SPE 257</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 101</td>
<td>Basic Mathematics</td>
<td></td>
</tr>
<tr>
<td>SCI 200</td>
<td>Science, Technology &amp; Society</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>SSC 200</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>HUM 200</td>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>CIS 100</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>AMS 104</td>
<td>Basic Automotive Electricity</td>
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<tr>
<td>AMS 110</td>
<td>Engine Fundamentals and Overhaul</td>
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</tr>
<tr>
<td>AMS 125</td>
<td>Engine Performance I</td>
<td></td>
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<tr>
<td>AMS 116</td>
<td>Electrical Systems I: Electrical Accessories</td>
<td>AMS 104 (may be taken concurrently) or Instructor approval</td>
</tr>
<tr>
<td>AMS 124</td>
<td>Automotive Heating &amp; Air Conditioning</td>
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</tr>
<tr>
<td>AMS 126</td>
<td>Engine Performance II</td>
<td>AMS 104 and AMS 125, OR State certified in engine tune-up area</td>
</tr>
<tr>
<td>AMS 205</td>
<td>Steering &amp; Suspension Systems</td>
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<tr>
<td>AMS 206</td>
<td>Brakes</td>
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</tr>
<tr>
<td>AMS 223</td>
<td>Electrical Systems II: Engine Electrical Systems</td>
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</tr>
<tr>
<td>AMS 214</td>
<td>Automatic Transmissions</td>
<td>Completion of 45 credits of program with remaining courses concurrent to Co-op. Permission of the Co-op Coordinator required. Professional tools required.</td>
</tr>
<tr>
<td>AMS 222</td>
<td>Manual Transmissions</td>
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</tr>
<tr>
<td>AMS 232</td>
<td>Automotive Co-op</td>
<td></td>
</tr>
</tbody>
</table>

Note: AMS coursework must be completed with a minimum grade of “C” to be eligible for AMS 232 Automotive Co-op.

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
ASSOCIATE IN APPLIED SCIENCE
AUTOMOTIVE TECHNOLOGY

RECOMMENDED COURSE SEQUENCE
FIRST SEMESTER
AMS 104
AMS 110
AMS 125

SECOND SEMESTER
AMS 116
AMS 124
AMS 126

THIRD SEMESTER
AMS 205
AMS 206
AMS 223

FOURTH SEMESTER
AMS 214
AMS 222
AMS 232

AMS 104
AMS 116
AMS 104
AMS 125
AMS 126
AMS 205
AMS 206
AMS 214
AMS 222
AMS 223
AMS 232

(AMS 214 & 222 can be concurrent)
### Communication Skills (Group I) - 9 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111*</td>
<td>Freshman English Composition</td>
<td>3</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>SPE 101</td>
<td>Fundamentals of Communication</td>
<td>3</td>
<td></td>
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<tr>
<td>OR SPE 257</td>
<td>Public Speaking</td>
<td>3</td>
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### Science and Mathematics (Group II) – 6 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105</td>
<td>Intermediate Algebra</td>
<td>3</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>OR MAT 116</td>
<td>Business Math I</td>
<td>3</td>
<td>Minimum grade of &quot;C&quot; in MAT 105 or equivalent</td>
</tr>
<tr>
<td>SCI 200</td>
<td>Science, Technology &amp; Society</td>
<td>3</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
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</table>

### Social Sciences (Group III) - 6 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201</td>
<td>Principles of Economics (Macro)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OR ECO 202</td>
<td>Principles of Economics (Micro)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SSC 200</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>3</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
</tbody>
</table>

### Humanities and Fine Arts (Group IV) - 3 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 200</td>
<td>Modernity &amp; Culture</td>
<td>3</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>American Culture</td>
<td>3</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
</tbody>
</table>

### Applied Arts and Sciences (Group V) - 45 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ACC 211</td>
<td>Managerial Accounting</td>
<td>4</td>
<td>Minimum grade of &quot;C&quot; in ACC 201</td>
</tr>
<tr>
<td>BIS 264</td>
<td>Business Communications II</td>
<td>3</td>
<td>BIS 164 or ENG 111</td>
</tr>
<tr>
<td>BUS 122</td>
<td>Management Theory &amp; Practice</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 151</td>
<td>Introduction to Business Issues</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 153</td>
<td>Business Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 162</td>
<td>Principles of Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 231</td>
<td>Principles of Advertising</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 255</td>
<td>Entrepreneurial Finance</td>
<td>3</td>
<td>Prerequisite: ACC 201 and MAT 105. It is recommended that students also have completed MAT 116, BUS 151, and either ECO 201 or 202.</td>
</tr>
<tr>
<td>BUS 289</td>
<td>Business Practicum</td>
<td>1</td>
<td>Prerequisites: CIS 100, ACC 201, BUS 122, BUS 151, BUS 153, BUS 162, BUS 231, and either ECO 201 or ECO 202.</td>
</tr>
<tr>
<td>CIS 100</td>
<td>Introduction to Information Systems</td>
<td>3</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>CIS 130</td>
<td>Applications with Microcomputers</td>
<td>3</td>
<td>Minimum grade of &quot;C&quot; in CIS 100</td>
</tr>
</tbody>
</table>

6 hours must come from any combination of the following courses

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 251</td>
<td>Tax Accounting I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 252</td>
<td>Tax Accounting II</td>
<td>3</td>
<td>ACC 251</td>
</tr>
<tr>
<td>BUS 225</td>
<td>International Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 250</td>
<td>Entrepreneurial Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to General Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIS 140</td>
<td>Beginning Word Processing/Keyboarding</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
Suggested Sequence of Courses

FIRST SEMESTER (Fall) 18 Credit Hours
BUS 122 (3)
BUS 151 (3)
CIS 100 (3)
MAT 105 or 116 (3)
BIS 140 (3)
BUS 153 (3)

SECOND SEMESTER (Winter) 16 Credit Hours
ACC 201 (4)
BUS 162 (3)
CIS 130 (3)
ENG 111 (3)
SPE 101 (3) OR SPE 257 (3)

THIRD SEMESTER (Fall) 16 Credit Hours
ACC 211 (4)
BUS 231 (3)
ECO 201 (3) OR ECO 202 (3)
HUM 200 (3) OR HUM 253 (3)
BUS 225 (3)

FOURTH SEMESTER (Winter) 16 Credit Hours
BUS 255 (3)
BUS 289 (1)
BUS 291 (3)
BIS 264 (3)
SCI 200 (3)
SSC 200 (3)
ASSOCIATE IN APPLIED SCIENCE
BUSINESS INFORMATION SYSTEMS

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program.

Prerequisite to the Program: BIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent OR concurrent.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>3 3</td>
<td>English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3 3</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>SPE 257</td>
<td>3 3</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Science and Mathematics (Group II) – 3 credit hours</td>
<td>3 4</td>
<td>Science, Technology &amp; Society</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Social Sciences (Group III) - 3 credit hours</td>
<td>3 3</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Humanities and Fine Arts (Group IV) - 3 credit hours</td>
<td>3 3</td>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>3 3</td>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Applied Arts and Sciences (Group V) – 38 credit hours</td>
<td>3 3</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>CIS 100</td>
<td>3 3</td>
<td>Office Mathematics</td>
<td></td>
</tr>
<tr>
<td>BIS 120</td>
<td>4 4</td>
<td>Applied Office Accounting</td>
<td>BIS 120</td>
</tr>
<tr>
<td>BIS 136</td>
<td>3 3</td>
<td>Terminology and Proofreading</td>
<td>BIS 164, ENG 111 may be taken concurrently</td>
</tr>
<tr>
<td>BIS 142</td>
<td>3 3</td>
<td>Intermediate Word Processing/Keyboarding</td>
<td>BIS 140 or equivalent</td>
</tr>
<tr>
<td>BIS 164</td>
<td>3 3</td>
<td>Business Communications I</td>
<td>Recommended concurrent enrollment in BIS 140 or CIS 100 or knowledge of correct keyboarding techniques</td>
</tr>
<tr>
<td>BIS 200</td>
<td>3 3</td>
<td>Advanced Word Processing Applications</td>
<td>BIS 140 or equivalent, CIS 100 recommended</td>
</tr>
<tr>
<td>BIS 230</td>
<td>3 3</td>
<td>Written Correspondence I</td>
<td>ENG 111, CIS 100, BIS 136, BIS 142, BIS 164</td>
</tr>
<tr>
<td>BIS 240</td>
<td>3 3</td>
<td>Advanced Word Processing/Keyboarding</td>
<td>ENG 111, BIS 136, BIS 142, BIS 200</td>
</tr>
<tr>
<td>BIS 250</td>
<td>3 3</td>
<td>Records Management</td>
<td>BIS 140 or equivalent, CIS 100 recommended</td>
</tr>
<tr>
<td>BIS 260</td>
<td>4 4</td>
<td>Co-op</td>
<td>In order to be placed in a training site and enrolled in BIS 260, the student should have completed the first three semesters of the program and must have approval of the BIS Co-op instructor and the MMCC Co-op Coordinator.</td>
</tr>
<tr>
<td>BIS 264</td>
<td>3 3</td>
<td>Business Communications II</td>
<td>BIS 164 or ENG 111</td>
</tr>
</tbody>
</table>

A minimum of 9 hours must come from a selected track

General BIS Track

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 151</td>
<td>3 3</td>
<td>Introduction to Business Issues</td>
<td></td>
</tr>
<tr>
<td>CIS 130</td>
<td>3 3</td>
<td>App. with Microcomputers</td>
<td>CIS 100</td>
</tr>
<tr>
<td>BIS 234</td>
<td>3 3</td>
<td>Written Correspondence II</td>
<td>BIS 200, BIS 230, BIS 240</td>
</tr>
<tr>
<td>BIS 254</td>
<td>3 3</td>
<td>Office Procedures</td>
<td></td>
</tr>
</tbody>
</table>

Medical Office Track

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH 100</td>
<td>2 2</td>
<td>Medical Terminology</td>
<td></td>
</tr>
<tr>
<td>ALH 112</td>
<td>3 3</td>
<td>Insurance Billing</td>
<td>ALH 100</td>
</tr>
<tr>
<td>BIS 126</td>
<td>3 3</td>
<td>Introduction to Medical Transcription</td>
<td>BIS 140 or competency. Corequisite: ALH 100 recommended</td>
</tr>
<tr>
<td>BIS 236</td>
<td>3 3</td>
<td>Medical Transcription I</td>
<td>ALH 100, BIS 142, BIS 230</td>
</tr>
<tr>
<td>BIS 255</td>
<td>3 3</td>
<td>Medical Office Procedures</td>
<td>BIS 140, CIS 100</td>
</tr>
</tbody>
</table>

Legal Office Track

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIS 138</td>
<td>3 3</td>
<td>Basic Legal Terminology</td>
<td>BIS 140 or equivalent or concurrent enrollment, BIS 164 recommended or concurrent enrollment</td>
</tr>
<tr>
<td>BIS 238</td>
<td>3 3</td>
<td>Legal Transcription</td>
<td>BIS 138, BIS 200, BIS 230, BIS 240</td>
</tr>
<tr>
<td>BUS 153</td>
<td>3 3</td>
<td>Business Law</td>
<td></td>
</tr>
<tr>
<td>BIS 254</td>
<td>3 3</td>
<td>Office Procedures</td>
<td></td>
</tr>
</tbody>
</table>

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
ASSOCIATE IN APPLIED SCIENCE
BUSINESS INFORMATION SYSTEMS

Suggested Sequence of Courses

FIRST SEMESTER
BIS 120
CIS 100
BIS 164

SECOND SEMESTER
BIS 136
BIS 142
BIS 200

THIRD SEMESTER
BIS 230
BIS 240
BIS 250
BIS 264

FOURTH SEMESTER
BIS 127
BIS 234
BIS 254
BIS 260
### ASSOCIATE IN APPLIED SCIENCE DEGREE:
**COMPUTER AIDED DRAFTING & DESIGN TECHNOLOGY**

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program. Suggested sequence on reverse (print) or page 2 (digital).

#### Credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication Skills (Group I) - 6 credit hours</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| ENG 111 | 3 | 3 | Freshman English Composition | Placement into ENG 111 or ENG 110 with a minimum grade of "C"
| OR SPE 101 | 3 | 3 | Fundamentals of Communication | |
| OR SPE 257 | 3 | 3 | Public Speaking | |

| **Science and Mathematics (Group II) – 10-13 credit hours** | | | |
| MAT 170 | 3 | 3 | Technical Math II | Minimum grade of "C" in MAT 101 OR minimum grade of "C" in MAT 102 OR equivalent
| OR MAT 124 | 5 | 5 | Pre-Calculus | Minimum grade of "C" in MAT 105 OR equivalent
| SCI 200 | 3 | 4 | Science, Technology, & Society | EN 111 and either SPE 101 or SPE 257 (minimum grade of "C" in each)
| OR PHY 103 | 4 | 5 | Applied Physics | Corequisite: MAT 104 OR MAT 170
| OR PHY 105 | 5 | 6 | General Physics I | MAT 124 OR equivalent

| **Social Sciences (Group III) - 3 credit hours** | | | |
| SSC 200 | 3 | 3 | The Social Sciences & Contemporary America | EN 111 and either SPE 101 or SPE 257 (minimum grade of "C" in each)

| **Humanities and Fine Arts (Group IV) - 3 credit hours** | | | |
| HUM 200 | 3 | 3 | Modernity & Culture | EN 111 and either SPE 101 or 257 (minimum grade of "C" in each)
| OR HUM 253 | 3 | 3 | American Culture | EN 111 and either SPE 101 or 257 (minimum grade of "C" in each)

| **Applied Arts and Sciences (Group V) - 38 credit hours** | | | |
| **Required:** | | | |
| CIS 100 | 3 | 3 | Introduction to Information Processing Systems | Touch keyboarding skills recommended
| DRF 101 | 3 | 3 | Technical Drawing | DRF 101 Technical Drawing; IND 101 recommended
| DRF 105 | 2 | 2 | Intro to Geometric Dimensioning & Tolerancing | DRF 101 & DRF 120
| DRF 120 | 3 | 3 | Introduction to AutoCAD | DRF 101 & DRF 120
| DRF 201 | 3 | 3 | Mechanical Detail Drafting w/CAD | DRF 101 & DRF 120
| DRF 210 | 3 | 3 | Introduction to SolidWorks | DRF 210
| DRF 211 | 3 | 3 | Advanced SolidWorks Applications | DRF 210
| DRF 250 | 3 | 3 | Drafting/CAD Co-Op | Minimum grade of "B" in DRF 101, 105, 120, 201, 210, 211, IND 101, IND 113, and IND 116 OR successful completion of competency exam with minimum score of 83%
| DRF 280 | 3 | 3 | CAD Program and Software Certification | Minimum grade of "B" in DRF 101, 120, 201, 210, and 211 OR successful completion of competency exam with minimum score of 83%
| IND 101 | 4 | 4 | Basic Machine Shop Practices | |
| IND 113 | 4 | 4 | CNC Machining | |
| IND 116 | 4 | 4 | CNC Programming | IND 101, IND 113, minimum grade of "C" in MAT 105 OR MAT 170 OR equivalent

| **Electives – 2-5 credit hours from the following courses:** | | | |
| DRF 220 | 3 | 3 | Introduction to SoftPlan | |
| IND 140 | 3 | 3 | Metallurgy and Industrial Metals | |
| WLD or PLT Elective | Any WLD or PLT Elective | |
This degree is not designed to provide transfer into a four-year Bachelor’s Degree program. Students should meet with an MMCC Academic Advisor if interested in transferring to a four-year college or university.

ASSOCIATE IN APPLIED SCIENCE DEGREE:

COMPUTER AIDED DRAFTING & DESIGN TECHNOLOGY

Suggested Sequence of Courses

FIRST SEMESTER (Fall) 15 Credit Hours
DRF 101 (3)
DRF 120 (3)
IND 101 (4)
CIS 100 (3)
MAT 170 (3)

SECOND SEMESTER (Winter) 15 Credit Hours
DRF 201 (3)
DRF 210 (3)
ELECTIVE (3)
ENG 111 (3)
SPE 101 (3)

THIRD SEMESTER (Fall) 15 Credit Hours
DRF 105 (2)
DRF 211 (3)
IND 113 (4)
HUM 200 (3) OR HUM 253 (3)
SCI 200 (3)

FOURTH SEMESTER (Winter) 17 Credit Hours
DRF 280 (3)
DRF 250 (3)
IND 116 (4)
SSC 200 (3)
PHY 103 (4)
ASSOCIATE IN APPLIED SCIENCE
COMPUTER INFORMATION SYSTEMS

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 64 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Intermediate Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>3</td>
<td>Business Math I</td>
<td>Minimum grade of &quot;C&quot; in MAT 105 or equivalent</td>
</tr>
<tr>
<td>3</td>
<td>Science, Technology &amp; Society</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>3</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
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<tr>
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<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>3</td>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>4</td>
<td>Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Business Communications II</td>
<td>BIS 164 or ENG 111</td>
</tr>
<tr>
<td>3</td>
<td>Introduction to Business Issues</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>3</td>
<td>Microsoft Excel</td>
<td>CIS 100</td>
</tr>
<tr>
<td>3</td>
<td>Introduction to Website Design</td>
<td>CIS 100</td>
</tr>
<tr>
<td>3</td>
<td>Networking Essentials</td>
<td></td>
</tr>
</tbody>
</table>

Students must complete ONE of the following three CIS concentrations:

**Networking**
- CIS 155 3 3 Operating Systems | CIS 100
- CIS 190 3 3 Cisco I | CIS 100, MAT 104
- CIS 195 3 3 Cisco II | CIS 190
- CIS 290 3 3 Cisco III | CIS 195
- CIS 295 3 3 Cisco IV | CIS 290

**VB Programming**
- CIS 221 3 3 Computers In Business | Prerequisite or corequisite: ACC 201
- CIS 225 3 3 Database Systems | CIS 110 or CIS 130
- CIS 260 3 3 Systems Analysis | CIS 100
- CIS 110 3 3 VB Programming I | MAT 104 or equivalent
- CIS 111 3 3 VB Programming II | CIS 110

**C++ Programming**
- CIS 221 3 3 Computers In Business | Prerequisite or corequisite: ACC 201
- CIS 225 3 3 Database Systems | CIS 110 or CIS 130
- CIS 260 3 3 Systems Analysis | CIS 100
- CIS 175 3 3 C++ Programming I | MAT 104 or equivalent
- CIS 176 3 3 C++ Programming II | CIS 175

Students must complete 9 elective hours of additional CIS coursework.

- CIS Elective
- CIS Elective
- CIS Elective

40
ASSOCIATE IN APPLIED SCIENCE
CRIMINAL JUSTICE - CORRECTIONS

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program.
A minimum of 15 credit hours must consist of 200 level coursework.

Credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3 3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td>ENG 222</td>
<td>3 3</td>
<td>Expository Writing &amp; Research</td>
<td>Minimum grade of “C” in ENG 111</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3 3</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3 3</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Science and Mathematics (Group II) – 9 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105</td>
<td>3 3</td>
<td>Intermediate Algebra</td>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
</tr>
<tr>
<td>SCI 200</td>
<td>3 4</td>
<td>Science, Technology &amp; Society</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of “C” in each)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Group II Elective</td>
<td></td>
</tr>
</tbody>
</table>

Social Sciences (Group III) - 9 credit hours

Courses must be taken in more than one discipline with at least 3 credits at the 200 level.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Group III Elective</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Group III Elective</td>
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<tr>
<td></td>
<td></td>
<td>Group III Elective</td>
<td></td>
</tr>
</tbody>
</table>

Humanities and Fine Arts (Group IV) - 9 credit hours

Courses must be taken in more than one discipline with at least one at the 200-level.

Only three credits allowed from Fine Arts classes.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Group IV Elective</td>
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<tr>
<td></td>
<td></td>
<td>Group IV Elective</td>
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<tr>
<td></td>
<td></td>
<td>Group IV Elective</td>
<td></td>
</tr>
</tbody>
</table>

Applied Arts and Sciences (Group V) - 12-18 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100</td>
<td>3 3</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select one of the following concentration tracks:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>State Corrections</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local Detention</td>
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<tr>
<td></td>
<td></td>
<td>Elective (8-14) Choose from Group III, IV, and VI (PED 255 recommended)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Prior to entering the Criminal Justice Corrections Programs, Students must meet with an advisor to assure that the student meets the minimum standards set by the Michigan Department of Corrections (MDOC) and or the Michigan Sheriffs Coordinating and Training Council (MSCTC)
Distribution Group course lists and General Education requirements on reverse (print version) or page two (digital version)
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:

**Group I - Communication Skills**
English 104, 110, 111, 222, 225, Journalism, Speech

**Group II - Science and Mathematics**
Mathematics: Mathematics
Natural Science: Biology, Environmental Science
Physical Science: Chemistry, Computer Science (CIS 110, 111, 121, 131, 151, 152, 175, 176), Geology, Physical Science, Physics, Science

**Group III - Social Science**
Anthropology, Economics, Geography, Human Environmental Studies, History (211, 212, 223, 251, 252), Political Science, Psychology, Social Science, Sociology

**Group 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, Religion, Spanish, TAI 275

**Group V - Applied Arts & Sciences**

**Group VI - Health/Physical Education**
Health Education, Physical Education

**Group VII - Education**
Elementary Education, Secondary Education

**Group VIII - Personal Development**
MID Courses

GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE OF APPLIED SCIENCE DEGREES

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

**LEVEL II:** HUM 200/253, SCI 200, and SSC 200 or their respective equivalents.
* 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 200/253 -or- 9 credit hours in Humanities and Fine Arts disciplines. Courses must be taken in more than one discipline with at least one course at the 200-level. Only 3 credits allowed from Fine Arts Classes.

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 with the exception of math. 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 with the exception of math.
ASSOCIATE IN APPLIED SCIENCE
CRIMINAL JUSTICE - PRE-SERVICE

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 63 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course #</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Skills (Group I) - 6 credit hours</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>□ ENG 111</td>
<td>3 3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>□ SPE 101</td>
<td>3 3</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3 3</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Science and Mathematics (Group II) - 6 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ MAT 105</td>
<td>3 3</td>
<td>Intermediate Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>□ SCI 200</td>
<td>3 4</td>
<td>Science, Technology &amp; Society</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Social Sciences (Group III) - 3 credit hours</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>□ SSC 200</td>
<td>3 3</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Humanities and Fine Arts (Group IV) - 3 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ HUM 200</td>
<td>3 3</td>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>3 3</td>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Applied Arts and Sciences (Group V) – 42 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ CIS 100</td>
<td>3 3</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>□ CJS 200</td>
<td>3 3</td>
<td>Intro to Law Enforcement and Criminal Justice</td>
<td>CJS 200</td>
</tr>
<tr>
<td>□ CJS 201</td>
<td>3 3</td>
<td>Criminal Law for Police Officers</td>
<td>CJS 200</td>
</tr>
<tr>
<td>□ CJS 215</td>
<td>21</td>
<td>Police Academy – Kirtland Community College or Delta College</td>
<td></td>
</tr>
<tr>
<td>Complete 4 of the following 5 courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ CJS 202</td>
<td>3 3</td>
<td>Juvenile Law &amp; Procedures</td>
<td>CJS 200</td>
</tr>
<tr>
<td>□ CJS 203</td>
<td>3 3</td>
<td>Fundamentals of Supervision &amp; Management in Criminal Justice</td>
<td>CJS 200</td>
</tr>
<tr>
<td>□ CJS 204</td>
<td>3 3</td>
<td>Criminal Investigation</td>
<td>CJS 201</td>
</tr>
<tr>
<td>□ CJS 205</td>
<td>3 3</td>
<td>Evidence and the Police Officer</td>
<td>CJS 202</td>
</tr>
<tr>
<td>□ CJS 206</td>
<td>3 3</td>
<td>Police Patrol Operations</td>
<td>CJS 200</td>
</tr>
<tr>
<td>Health and Physical Education (Group VI) - 3 credit hours</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>□ PED 255</td>
<td>3 3</td>
<td>Physical Training</td>
<td></td>
</tr>
</tbody>
</table>
### ASSOCIATE IN APPLIED SCIENCE

#### EARLY CHILDHOOD EDUCATION

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program.

<table>
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<th>Credit hours</th>
<th>Contact/Billing Hours</th>
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<td><strong>Course #</strong></td>
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<td>ENG 111</td>
<td>Freshman English Composition</td>
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<tr>
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<td>Fundamentals of Communication</td>
<td></td>
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<tr>
<td>OR SPE 257</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>SCI 200</td>
<td>Science, Technology &amp; Society</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>MAT 101</td>
<td>Basic Mathematics</td>
<td></td>
</tr>
<tr>
<td>SSC 200</td>
<td>The Social Sciences &amp; Contemporary</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Intro to Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 212</td>
<td>Developmental Psychology</td>
<td>PSY 101</td>
</tr>
<tr>
<td>SSC 200</td>
<td>The Social Sciences &amp; Contemporary</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>OR Select ONE of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANT 170, POL 201, SOC 101, SOC 250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HUM 200</td>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
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<tr>
<td>OR HUM 253</td>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>CIS 100</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>ECE 101</td>
<td>Intro to Early Childhood Education</td>
<td>Co-requisite: ECE 101 or permission of the ECE Coordinator</td>
</tr>
<tr>
<td>ECE 112</td>
<td>Infancy</td>
<td>Pre-requisite: ECE 101 and ECE 112, or permission of the ECE Coordinator</td>
</tr>
<tr>
<td>ECE 113</td>
<td>Early Childhood</td>
<td></td>
</tr>
<tr>
<td>ECE 114</td>
<td>Interacting with Children, Parent/Adult Child Relations</td>
<td>Pre-requisite: ECE 101 and ECE 112</td>
</tr>
<tr>
<td>ECE 201</td>
<td>Guidance &amp; Implementation of Programs for Young Children</td>
<td>Pre-requisite: ECE 113 and ECE 114</td>
</tr>
<tr>
<td>ECE 202</td>
<td>Creative Development of the Child</td>
<td>Pre-requisite: ECE 113 and ECE 114</td>
</tr>
<tr>
<td>ECE 206</td>
<td>Parent, School &amp; Community Involvement</td>
<td>Pre-requisite: ECE 113 and ECE 114</td>
</tr>
<tr>
<td>ECE 207</td>
<td>Early Childhood Education Practicum</td>
<td>Pre-requisites: ECE 201, ECE 202, ECE 206 and ENG 111</td>
</tr>
<tr>
<td>ECE 208</td>
<td>Early Childhood Education Administration</td>
<td>Pre-requisites: ECE 201, ECE 202, ECE 206 and ENG 111, or permission of the ECE Coordinator</td>
</tr>
</tbody>
</table>

### Elective – 2-3 credit hours

- Recommended: ART 110, ART 245, ECE 150, EDU 107, ENG 222, PSY 281. Neither ENG 104 nor ENG 110 can be used as electives.

Note: All courses listed on this program guide must be completed with a minimum grade of “C”. ECE courses require students to show validation of NO evidence of Child Abuse or Neglect per Public Act 68 of 1993 by third week of class. Students must successfully pass ICHAT and National Sex Offender Registry background searches.

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
Suggested Sequence of ECE Courses

FIRST SEMESTER
ECE 101
ECE 112

SECOND SEMESTER
ECE 113
ECE 114

THIRD SEMESTER
ECE 201
ECE 202
ECE 206

FOURTH SEMESTER
ECE 207
ECE 208
## ASSOCIATE IN APPLIED SCIENCE
### GENERAL TECHNOLOGY

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program.

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<td>SPE 101</td>
<td>Fundamentals of Communication</td>
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</tr>
<tr>
<td>OR SPE 257</td>
<td>Public Speaking</td>
<td></td>
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<tr>
<td></td>
<td>Group I Elective</td>
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</tr>
<tr>
<td>MAT 104</td>
<td>Basic Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 101 OR Minimum grade of &quot;C&quot; in MAT 102 OR equivalent</td>
</tr>
<tr>
<td>SCI 200</td>
<td>Science, Technology, and Society</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
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<td>OR HUM 253</td>
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<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
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<td>CIS 100</td>
<td>Introduction to Information Systems</td>
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<tr>
<td>Electives</td>
<td>Group V (See Distribution Group listings for eligible courses)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group V</td>
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<td>Group V</td>
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<tr>
<td>Electives - 5 credit hours - Groups I-VII</td>
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<tr>
<td></td>
<td>Groups I-VII</td>
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<tr>
<td></td>
<td>Groups I-VII</td>
<td></td>
</tr>
</tbody>
</table>

Distribution Group course lists and General Education requirements on reverse (print version) or page two (digital version)
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:

Group I - Communication Skills
English 104, 110, 111, 222, 225, Journalism, Speech

Group II - Science and Mathematics
Mathematics: Mathematics
Natural Science: Biology, Environmental Science
Physical Science: Chemistry, Computer Science (CIS 110, 111, 121, 131, 151, 152, 175, 176), Geology, Physical Science, Physics, Science

Group III - Social Science
Anthropology, Economics, Geography, Human Environmental Studies, History (211, 212, 223, 251, 252), Political Science, Psychology, Social Science, Sociology

Group 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, Religion, Spanish, TAI 275

Group V - Applied Arts & Sciences

Group VI - Health/Physical Education
Health Education, Physical Education

Group VII - Education
Elementary Education, Secondary Education

Group VIII - Personal Development
MID Courses

GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE OF APPLIED SCIENCE DEGREES

LEVEL I: CIS 100, ENG 111, MAT (as specified on the degree) & either SPE 101 or 257
LEVEL II: HUM 200/253, SCI 200, and SSC 200 or their respective equivalents.
* SCI 200 -or- 7 hrs in Science (BIO, ENV, CHM, PHY, PSC, GEL); must come from at least two disciplines; one class w/lab required
* SSC 200 -or- 9 hrs in 2 Social Science disciplines.
* HUM 200/253 -or- 9 credit hours in Humanities and Fine Arts disciplines. Courses must be taken in more than one discipline with at least one course at the 200-level. Only 3 credits allowed from Fine Arts Classes.

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 with the exception of math. 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 with the exception of math.
# ASSOCIATE IN APPLIED SCIENCE: GRAPHIC DESIGN

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC. A minimum of 66 credits is required to complete this program.

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<tr>
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<td></td>
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<tr>
<td>Pre-requisites</td>
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<td></td>
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</tr>
<tr>
<td>Communication Skills (Group I) - 6 credit hours</td>
<td>ENG 111</td>
<td>3 3 Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>Fundamentals of Communication</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>MAT 101</td>
<td>3 3 Basic Mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCI 200</td>
<td>3 4 Science, Technology &amp; Society</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of “C” in each)</td>
<td></td>
</tr>
<tr>
<td>Social Sciences (Group III) - 3 credit hours</td>
<td>SSC 200</td>
<td>3 3 The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of “C” in each)</td>
</tr>
<tr>
<td>Humanities and Fine Arts (Group IV) - 42 credit hours</td>
<td>HUM 101</td>
<td>3 3 World of Creativity I</td>
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<tr>
<td>HUM 102</td>
<td>3 3 World of Creativity II</td>
<td></td>
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</tr>
<tr>
<td>ART 105</td>
<td>3 3 Drawing I - Introductory</td>
<td></td>
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<tr>
<td>ART 110</td>
<td>3 3 Basic Photography</td>
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<tr>
<td>ART 115</td>
<td>3 3 Design I</td>
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<tr>
<td>ART 205</td>
<td>3 3 Drawing II</td>
<td>ART 105</td>
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<tr>
<td>ART 215</td>
<td>3 3 Design II</td>
<td>ART 115</td>
<td></td>
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<tr>
<td>ART 130</td>
<td>3 3 Painting I</td>
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<tr>
<td>ART 135</td>
<td>3 3 Graphic Design I</td>
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<tr>
<td>ART 235</td>
<td>3 3 Graphic Design II</td>
<td>ART 135</td>
<td></td>
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<tr>
<td>ART 236</td>
<td>3 3 Graphic Design III</td>
<td>ART 235</td>
<td></td>
</tr>
<tr>
<td>ART 211</td>
<td>3 3 Page Layout I</td>
<td></td>
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<tr>
<td>ART 239</td>
<td>3 3 Page Layout II</td>
<td>ART 211</td>
<td></td>
</tr>
<tr>
<td>ART 152</td>
<td>3 3 Introduction to Website Design</td>
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<tr>
<td>OR CIS 135</td>
<td>3 3 Introduction to Website Design</td>
<td></td>
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</tr>
<tr>
<td>ART 240</td>
<td>3 3 Studio Problems in Graphic Design</td>
<td>ART 110, 130, 205, 215, 236, 239</td>
<td></td>
</tr>
<tr>
<td>Elective – 6 credit hours: Choose TWO from the following:</td>
<td>ART 210</td>
<td>3 3 Illustration</td>
<td>ART 235, ART 205</td>
</tr>
<tr>
<td>ART 237</td>
<td>3 3 Photography II</td>
<td>ART 110</td>
<td></td>
</tr>
<tr>
<td>ART 230</td>
<td>3 3 Painting II</td>
<td>ART 130</td>
<td></td>
</tr>
<tr>
<td>ART 137</td>
<td>3 3 Digital Photography</td>
<td>ART 110 or permission of instructor</td>
<td></td>
</tr>
<tr>
<td>ART 206</td>
<td>3 3 Comic Book &amp; Graphic Novel Illustration</td>
<td>ART 105</td>
<td></td>
</tr>
<tr>
<td>ART 247</td>
<td>3 3 Contemporary Photography</td>
<td>ART 110, 137</td>
<td></td>
</tr>
<tr>
<td>ART 252</td>
<td>3 3 Website Design II</td>
<td>ART 152 or CIS 135</td>
<td></td>
</tr>
<tr>
<td>ART 253</td>
<td>3 3 Flash Fundamentals</td>
<td>CIS 100</td>
<td></td>
</tr>
<tr>
<td>ART 254</td>
<td>3 3 Motion Graphics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 281</td>
<td>3 3 Internship I</td>
<td>Permission of the Internship Coordinator</td>
<td></td>
</tr>
<tr>
<td>BUS 231</td>
<td>3 3 Principles of Advertising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 100</td>
<td>3 3 Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
<td></td>
</tr>
<tr>
<td>DRF 120</td>
<td>3 3 Introduction to AutoCAD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suggested sequence on reverse (print) /page two (electronic)
ASSOCIATE IN APPLIED SCIENCE:
GRAPHIC DESIGN

Graphic Design ART Course Sequencing Schedule

FIRST SEMESTER (Fall)
ART 105 3 Drawing I - Introductory
ART 115 3 Design I
ART 135 3 Graphic Design I

SECOND SEMESTER (Winter)
ART 205 3 Drawing II
ART 215 3 Design II
ART 235 3 Graphic Design II
ART 211 3 Page Layout I

THIRD SEMESTER (Fall)
ART 110 3 Basic Photography
ART 130 3 Painting I
ART 236 3 Graphic Design III
ART 239 3 Page Layout II
Elective 3 Choose one elective from the list below (Courses can be taken in any available semester.)

FOURTH SEMESTER (Winter)
ART 240 3 Studio Problems in Graphic Design
ART 152 3 Introduction to Website Design
OR CIS 135 3 Introduction to Website Design
Elective 3 Choose one elective from the list below (Courses can be taken in any available semester.)

Elective choices
ART 210 3 Illustration
ART 237 3 Photography II
ART 230 3 Painting II
ART 137 3 Digital Photography
ART 206 3 Comic Book & Graphic Novel Illustration
ART 247 3 Contemporary Photography
ART 252 3 Website Design II
ART 253 3 Flash Fundamentals
ART 254 3 Motion Graphics
ART 281 3 Internship I
BUS 231 3 Principles of Advertising
DRF 120 3 Introduction to AutoCAD
ASSOCIATE IN APPLIED SCIENCE
HEATING/REFRIGERATION/AIR CONDITIONING

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 69 credits is required to complete this program.

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<td>SPE 101</td>
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</tr>
<tr>
<td>MAT 170</td>
<td>3 3 Technical Mathematics II</td>
<td>Minimum grade of “C” in MAT 101 OR equivalent</td>
</tr>
<tr>
<td>OR MAT 124</td>
<td>5 5 Precalculus *</td>
<td>Minimum grade of “C” in MAT 105 OR equivalent</td>
</tr>
<tr>
<td>PHY 103</td>
<td>4 5 Applied Physics</td>
<td>Co-requisite: MAT 104 or MAT 170</td>
</tr>
<tr>
<td>OR PHY 105</td>
<td>5 6 Introductory College Physics I *</td>
<td>Co-requisite: MAT 124 OR equivalent</td>
</tr>
<tr>
<td>SSC 200</td>
<td>3 3 Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of “C” in each)</td>
</tr>
<tr>
<td>HUM 200</td>
<td>3 3 Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of “C” in each)</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>3 3 American Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of “C” in each)</td>
</tr>
<tr>
<td>CIS 100</td>
<td>3 3 Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>DRF 120</td>
<td>3 4.5 Introduction to AutoCAD</td>
<td></td>
</tr>
<tr>
<td>HRA 102</td>
<td>3 4 Refrigeration Fundamentals</td>
<td></td>
</tr>
<tr>
<td>HRA 104</td>
<td>3 4 Residential Refrigeration</td>
<td>HRA 102</td>
</tr>
<tr>
<td>HRA 105</td>
<td>3 4 Hydronics</td>
<td>HRA 106</td>
</tr>
<tr>
<td>HRA 106</td>
<td>3 4 Heating Fundamentals</td>
<td></td>
</tr>
<tr>
<td>HRA 108</td>
<td>3 4 Heating Systems</td>
<td>HRA 106, HRA 116</td>
</tr>
<tr>
<td>HRA 116</td>
<td>3 4 Fundamentals of Electricity</td>
<td></td>
</tr>
<tr>
<td>HRA 198</td>
<td>1 1 EPA Refrigerant Handler Certification</td>
<td></td>
</tr>
<tr>
<td>HRA 204</td>
<td>3 4 Light Commercial Refrigeration</td>
<td>HRA 102</td>
</tr>
<tr>
<td>HRA 205</td>
<td>2 3 Motors &amp; Controls</td>
<td>HRA 116</td>
</tr>
<tr>
<td>HRA 215</td>
<td>3 4 HRA Controls</td>
<td>HRA 116</td>
</tr>
<tr>
<td>HRA 220</td>
<td>2 2 Commercial Refrigeration Design</td>
<td>Co-requisite: HRA 204</td>
</tr>
<tr>
<td>HRA 223</td>
<td>3 3 Residential HVAC Load Determination</td>
<td>HRA 108</td>
</tr>
<tr>
<td>HRA 225</td>
<td>3 3 Residential HVAC Distribution/Design</td>
<td>Co-requisite: HRA 223</td>
</tr>
<tr>
<td>HRA 240</td>
<td>3 4 Advanced Commercial Refrigeration</td>
<td>HRA 104, HRA 116, HRA 204</td>
</tr>
<tr>
<td>HRA 285</td>
<td>3 3 Co-op (Heating, Refrigeration &amp; Air Cond.)</td>
<td>Minimum of 12 credits in HRA</td>
</tr>
</tbody>
</table>

* Recommended for students transferring to Ferris State University

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
HRA Course Sequencing Schedule

Fast Track – Fall Start
(Day Classes)
Fall Semester
HRA 116 (3) credits
HRA 205 (2) credits
HRA 106 (3) credits
HRA 108 (3) credits
HRA 223 (3) credits
Total (14) credits

Winter Semester
HRA 225 (3) credits
HRA 105 (3) credits
HRA 102 (3) credits
HRA 104 (3) credits
HRA 285 (3) credits
HRA 204 (3) credits
Total (18) credits

Spring Semester
HRA 198 (1) credits
HRA 220 (2) credits
HRA 215 (3) credits
HRA 240 (3) credits
Total (9) credits
ASSOCIATE IN APPLIED SCIENCE
MAGNETIC RESONANCE IMAGING

In Collaboration with Michigan College Online

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 71 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100</td>
<td>3</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>ALH 100</td>
<td>2</td>
<td>Medical Terminology</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>MAT 105</td>
<td>3</td>
<td>Intermediate Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>PHY 101</td>
<td>3</td>
<td>Introductory Physics</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>BIO 138</td>
<td>6</td>
<td>Human Anatomy and Physiology</td>
<td>BIO 101 (minimum grade of C)</td>
</tr>
<tr>
<td>OR BIO 141 AND BIO 142</td>
<td>4 5</td>
<td>Anatomy &amp; Physiology I AND Anatomy &amp; Physiology II</td>
<td>BIO 101 (minimum grade of C) or equivalent</td>
</tr>
</tbody>
</table>

Completion of BIO 141 and BIO 142 is recommended to students intending to transfer to a four-year institution.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 101</td>
<td>3</td>
<td>Fundamentals of Communication</td>
<td>ENG 111 and either SPE 101 or SPE 257 minimum grade of &quot;C&quot; in each</td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3</td>
<td>Public Speaking</td>
<td>ENG 111 and either SPE 101 or SPE 257 minimum grade of &quot;C&quot; in each</td>
</tr>
<tr>
<td>PSY 101</td>
<td>3</td>
<td>Introduction to General Psychology</td>
<td>ENG 111 and either SPE 101 or SPE 257 minimum grade of &quot;C&quot; in each</td>
</tr>
<tr>
<td>SSC 200</td>
<td>3</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or SPE 257 minimum grade of &quot;C&quot; in each</td>
</tr>
<tr>
<td>HUM 200</td>
<td>3</td>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or SPE 257 minimum grade of &quot;C&quot; in each</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>3</td>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or SPE 257 minimum grade of &quot;C&quot; in each</td>
</tr>
</tbody>
</table>

Magnetic Resonance Imaging Coursework – 39 credit hours

First Semester (Spring) [Semester names vary between institutions]
<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI 200</td>
<td>1</td>
<td>Professional Prospectus</td>
<td>Admission to the MRI program</td>
</tr>
<tr>
<td>MRI 260</td>
<td>3</td>
<td>MRI Pre-Clinical Preparation</td>
<td>MRI 200</td>
</tr>
<tr>
<td>MRI 241</td>
<td>3</td>
<td>Applied Sectional Anatomy</td>
<td>MRI 200</td>
</tr>
</tbody>
</table>

Second Semester (Fall)
<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI 220</td>
<td>3</td>
<td>Physics I</td>
<td>MRI 200</td>
</tr>
<tr>
<td>MRI 230</td>
<td>3</td>
<td>MRI Procedures and Pathophysiology I</td>
<td>MRI 260, MRI 220, MRI 221</td>
</tr>
<tr>
<td>MRI 201</td>
<td>3</td>
<td>Computer Applications in Medical Imaging</td>
<td>MRI 222, MRI 230, MRI 261</td>
</tr>
<tr>
<td>MRI 261</td>
<td>3</td>
<td>Clinical Practice I</td>
<td>MRI 260, MRI 220, MRI 221</td>
</tr>
</tbody>
</table>

Third Semester (Winter)
<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI 222</td>
<td>3</td>
<td>MRI Physics II</td>
<td>MRI 260, MRI 220, MRI 221</td>
</tr>
<tr>
<td>MRI 232</td>
<td>3</td>
<td>MRI Procedures and Pathophysiology II</td>
<td>MRI 222, MRI 230, MRI 261</td>
</tr>
<tr>
<td>MRI 240</td>
<td>3</td>
<td>Image Analysis</td>
<td>MRI 232, MRI 201, MRI 262</td>
</tr>
<tr>
<td>MRI 262</td>
<td>3</td>
<td>Clinical Practice II</td>
<td>MRI 222, MRI 230, MRI 261</td>
</tr>
</tbody>
</table>

Fourth Semester (Spring)
<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI 263</td>
<td>3</td>
<td>Clinical Practice III</td>
<td>MRI 232, MRI 201, MRI 262</td>
</tr>
<tr>
<td>MRI 295</td>
<td>3</td>
<td>MRI Certification Exam Preparation</td>
<td>MRI 232, MRI 201, MRI 262</td>
</tr>
</tbody>
</table>

*All MRI courses billed at Michigan College Online rates

Important program notes and a suggested sequence of courses is presented on reverse (print version) or page two (digital version).
NOTES:
* All MRI courses are offered through Michigan College Online.
* Acceptance into the MRI program is required prior to taking MRI courses.
* MRI courses from previous semesters serve as prerequisite courses.
* All courses in a semester must be passed with a minimum grade of “C” to progress to the next semester.
* BIO 138 (or BIO 135 or BIO 141 & BIO 142) must be passed with a minimum grade of “B-”.
* If students have taken science courses prior to admission into a specific program, the courses must have been
* Prerequisites for this program may be repeated only once.

SUGGESTED SEQUENCE (After admission to the program)

FIRST SEMESTER
SPE 101 3  Fundamentals of Communication  OR
SPE 257 3  Public Speaking  (Recommended this semester)
PSY 101 3  Introduction to General Psychology  (Recommended this semester)
MRI 200 1  Professional Prospectus
MRI 260 3  MRI Pre-Clinical Preparation
MRI 241 3  Applied Sectional Anatomy

SECOND SEMESTER
SSC 200 3  The Social Sciences & Contemporary America  (Recommended this semester)
MRI 220 3  Physics I
MRI 230 3  MRI Procedures and Pathophysiology I
MRI 201 3  Computer Applications in Medical Imaging
MRI 261 3  Clinical Practice I

THIRD SEMESTER
HUM 200 3  Modernity & Culture  (Recommended this semester)
OR HUM 253 3  
MRI 222 3  MRI Physics II
MRI 232 3  MRI Procedures and Pathophysiology II
MRI 240 3  Image Analysis
MRI 262 3  Clinical Practice II

FOURTH SEMESTER
MRI 263 3  Clinical Practice III
MRI 295 3  MRI Certification Exam Preparation
### ASSOCIATE IN APPLIED SCIENCE  
**MEDICAL ASSISTANT**

THE MEDICAL ASSISTANT PROGRAM WILL BECOME A SELECTIVE ADMISSIONS PROGRAM EFFECTIVE FALL 2017. THE WAITLIST CLOSED TO NEW STUDENTS MARCH 5, 2014.

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 65 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites to the Program – 27 credit hours</td>
<td></td>
<td>ENG 111</td>
<td>3 Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPE 101</td>
<td>3 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR SPE 257</td>
<td>3 Public Speaking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO 131</td>
<td>3 Basic Anatomy &amp; Physiology</td>
<td>BIO 101 with a minimum grade of “C”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAT 104</td>
<td>3 Basic Algebra</td>
<td>Minimum grade of “C” in MAT 101 or in MAT 102 equivalent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSY 101</td>
<td>3 Intro to General Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CIS 100</td>
<td>3 Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ALH 100</td>
<td>2 Medical Terminology</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIS 127</td>
<td>4 Applied Office Accounting</td>
<td>MAT 104 for this degree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIS 164</td>
<td>3 Business Communications</td>
<td>Recommended concurrent enrollment in BIS 140 OR knowledge of correct keyboarding techniques</td>
<td></td>
</tr>
</tbody>
</table>

### Communication Skills (Group I)
Met with Prerequisites

### Science and Mathematics (Group II) – 3 credits hours
- SCI 200 | 3 | 4 Science, Technology & Society | ENG 111 and either SPE 101 or SPE 257 (minimum grade of "C" in each)

### Social Sciences (Group III) – 6 credit hours
- PSY 212 | 3 | Developmental Psychology | PSY 101
- | 3 | Group III Elective (Not PSY; SOC 101 Recommended) | |

### Humanities and Fine Arts (Group IV) – 3 credit hours
- HUM 200 | 3 | 3 Modernity & Culture | ENG 111 and either SPE 101 or 257 (minimum grade of "C" in each)
- OR HUM 253 | 3 | 3 American Culture | ENG 111 and either SPE 101 or 257 (minimum grade of "C" in each)

### Applied Arts and Sciences (Group V) - 26 credit hours
- ALH 112 | 3 | 3 Insurance Billing | ALH 100
- ALH 220 | 3 | 3 Medical Law and Ethics | |
- BIS 255 | 3 | 3 Procedures for the Medical Office | CIS 100 OR BIS 140
- *ALH 212 | 3 | 4 Clinical Procedures I | Admission to MA Program. Corequisite: ALH 213
- *ALH 213 | 3 | 4 Pharmacology for the Medical Assistant | Admission to MA Program. Corequisite: ALH 212
- *ALH 214 | 3 | 4 Clinical Procedures II | Admission to the Medical Assistant program and successful completion of ALH 212 and ALH 213 with a minimum grade of "C". Co-requisite ALH 230.
- *ALH 230 | 4 | 5 Laboratory Procedures for the Medical Office | Admission to the Medical Assistant program and successful completion of ALH 212 and ALH 213 with a minimum grade of "C". Co-requisite ALH 214.
- *ALH 250 | 4 | 11 Medical Assistant Office Externship | ALH 212, ALH 213, ALH 214 & ALH 230

Important program notes and the sequence of courses is presented on reverse (print version) or page two (digital version).
NOTES:
* All courses marked with an asterisk (*) are Restricted Enrollment Classes. The student must get a signature from the Program Director or the Dean of Health Sciences to be granted permission to the take these courses.
* Completion of BIO 131 must be taken within five years of being accepted into ALH 212.
* All courses leading to the completion of the Medical Assistant degree must be taken with a minimum grade of "C" and may be repeated only once, including withdrawals.
* A cumulative GPA of 2.5 (C+) is required to be eligible to be selected into the MA program classes (ALH 212, ALH 213, ALH 214, ALH 230, ALH 250).

REQUIRED SEQUENCE

FALL SEMESTER
ALH 212  Clinical Procedures I
ALH 213  Pharmacology for the Medical Assistant

WINTER SEMESTER
ALH 214  Clinical Procedures II
ALH 230  Laboratory Procedures for the Medical Office

SPRING SEMESTER
ALH 250  Medical Assistant Office Externship

Group III - Social Science
Anthropology, Economics, Geography, Human Environmental Studies, History (211, 212, 223, 251, 252), Political Science, Psychology, Social Science, Sociology
### ASSOCIATE IN APPLIED SCIENCE
#### PHYSICAL THERAPIST ASSISTANT

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 75 credits is required to complete this program. See reverse (print) or page two (digital) for important program notes.

### Credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisites to the Program – 15-17 credit hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTA 101</td>
<td>1</td>
<td>Orientation to Physical Therapy</td>
</tr>
<tr>
<td>ALH 100</td>
<td>2</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>BIO 138</td>
<td>6</td>
<td>Human Anatomy and Physiology</td>
</tr>
<tr>
<td>OR BIO 141 AND</td>
<td>4</td>
<td>Anatomy &amp; Physiology I AND</td>
</tr>
<tr>
<td>BIO 142</td>
<td>4</td>
<td>Anatomy &amp; Physiology II</td>
</tr>
</tbody>
</table>

Completion of BIO 141 and BIO 142 is recommended to students intending to transfer to a four-year institution.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>Freshman English Composition</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3</td>
<td>Fundamentals of Communication</td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>

**Other Program Requirements – 18 credit hours** (The other program requirements must be passed with a cumulative GPA of “B-” (2.7) or higher with a minimum grade of “C” in each course and may be taken before or while PTA courses are in progress.)

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100</td>
<td>3</td>
<td>Introduction to Information Systems</td>
</tr>
<tr>
<td>MAT 104</td>
<td>3</td>
<td>Basic Algebra</td>
</tr>
<tr>
<td>PHY 101</td>
<td>3</td>
<td>Introductory Physics</td>
</tr>
<tr>
<td>PSY 101</td>
<td>3</td>
<td>PSY 102</td>
</tr>
<tr>
<td>HUM 200</td>
<td>3</td>
<td>Modernity &amp; Culture</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>3</td>
<td>American Culture</td>
</tr>
<tr>
<td>SCC 200</td>
<td>3</td>
<td>The Social Sciences &amp; Contemp. America</td>
</tr>
</tbody>
</table>

#### First Semester – 8.5 credits (Admission to the program required before taking PTA courses)

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 115</td>
<td>1</td>
<td>Clinical Kinesiology</td>
</tr>
<tr>
<td>PTA 116</td>
<td>1</td>
<td>Clinical Kinesiology Lab</td>
</tr>
<tr>
<td>PTA 105</td>
<td>1</td>
<td>Modalities I</td>
</tr>
<tr>
<td>PTA 106</td>
<td>2</td>
<td>Modalities I Lab</td>
</tr>
<tr>
<td>PTA 110</td>
<td>1</td>
<td>Therapeutic Exercise</td>
</tr>
<tr>
<td>PTA 111</td>
<td>2</td>
<td>Therapeutic Exercise Lab</td>
</tr>
</tbody>
</table>

#### Second Semester – 11 credits

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 125</td>
<td>1</td>
<td>Measurement Techniques</td>
</tr>
<tr>
<td>PTA 126</td>
<td>2</td>
<td>Measurement Techniques Lab</td>
</tr>
<tr>
<td>PTA 130</td>
<td>2</td>
<td>Advanced Therapeutic Exercise</td>
</tr>
<tr>
<td>PTA 131</td>
<td>2</td>
<td>Advanced Therapeutic Exercise Lab</td>
</tr>
<tr>
<td>PTA 140</td>
<td>4</td>
<td>10.5</td>
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</table>

#### Third Semester – 7.5 credits

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 205</td>
<td>2</td>
<td>Modalities II</td>
</tr>
<tr>
<td>PTA 206</td>
<td>1.5</td>
<td>Modalities II Lab</td>
</tr>
<tr>
<td>PTA 207</td>
<td>2</td>
<td>Rehabilitation Techniques</td>
</tr>
<tr>
<td>PTA 208</td>
<td>2</td>
<td>Rehabilitation Techniques Lab</td>
</tr>
</tbody>
</table>

#### Fourth Semester – 15 credits

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 210</td>
<td>3</td>
<td>Clinical Forum</td>
</tr>
<tr>
<td>PTA 240</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

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ASSOCIATE IN APPLIED SCIENCE
PHYSICAL THERAPIST ASSISTANT

Notes:
Prerequisite:
* The following courses must each be passed with a minimum grade of “B-“(2.7) and may be repeated only once:
  BIO 138 (or BIO 141 and BIO 142 each), ALH 100, ENG 111, SPE 101 or SPE 257 and PTA 101.
* BIO 138 or (BIO 141 and BIO 142) must be taken within 5 years of beginning the Physical Therapist Assistant (PTA) Program and may be repeated only once.
* Completion of BIO 135 (no longer offered) with a minimum grade of "B-" (2.7) within the last five years will satisfy the BIO 138/(141 &142) requirement.

Other Program Requirements:
* The other program requirements must be passed with a cumulative GPA of “B-“(2.7) or higher with a minimum grade of “C” in each course and may be taken before or while PTA courses are in progress.

PTA Courses:
* Admission to the PTA Program is required before taking all PTA Courses with the exception of PTA 101 which is a prerequisite course.
* Students must pass each PTA didactic (lecture and laboratory) course with a minimum grade of "B-" (2.7).
Students must pass each PTA clinical education course (PTA 140 & 240). PTA 140 & 240 courses will be pass/fail; no grade will be given. Each course may be repeated only once.

Notes:
* Students must finish their Associate Degree in Applied Science requirements before receiving their Physical Therapist Assistant Certificate.
* The Physical Therapist Assistant Program at Mid Michigan Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) (1111 North Fairfax Street, Alexandria, VA 22314; phone (703) 706-3245; accreditation@apta.org; http://www.capteonline.org).
### ASSOCIATE IN APPLIED SCIENCE

**PLASTICS ENGINEERING TECHNOLOGY**

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 65 credits is required to complete this program. "TR" denotes recommendations for students who intend to transfer after completion. Students should consult with a Transfer Advisor.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills (Group I) - 6 credit hours</td>
<td>ENG 111 3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum</td>
</tr>
<tr>
<td></td>
<td>SPE 101 3</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR SPE 257 3</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Science and Mathematics (Group II) – 10-13 credit hours</td>
<td>MAT 170 3</td>
<td>Technical Math II</td>
<td>Minimum grade of &quot;C&quot; in MAT 101 OR minimum grade of &quot;C&quot; in MAT 102 OR equivalent</td>
</tr>
<tr>
<td></td>
<td>OR MAT 124 5</td>
<td>Pre-Calculus (TR)</td>
<td>Minimum grade of &quot;C&quot; in MAT 105 OR equivalent</td>
</tr>
<tr>
<td></td>
<td>SCI 200 3</td>
<td>Science, Technology, &amp; Society</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td></td>
<td>OR CHM 111 4</td>
<td>General College Chemistry (TR)</td>
<td>1 yr. HS Chemistry or CHM 105 or equivalent; 2 yrs. HS Algebra or MAT 105 (may be concurrent) or equivalent</td>
</tr>
<tr>
<td></td>
<td>PHY 103 4</td>
<td>Applied Physics</td>
<td>Corequisite: MAT 104 OR MAT 170</td>
</tr>
<tr>
<td></td>
<td>OR PHY 105 5</td>
<td>General Physics I (FSU)</td>
<td>MAT 124 OR equivalent</td>
</tr>
<tr>
<td>Social Sciences (Group III) - 3 credit hours</td>
<td>SSC 200 3</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Humanities and Fine Arts (Group IV) - 3 credit hours</td>
<td>HUM 200 3</td>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td></td>
<td>OR HUM 253 3</td>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or SPE 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>Applied Arts and Sciences (Group V) - 32 credit hours</td>
<td>DRF 120 3</td>
<td>Introduction to AutoCAD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR DRF 210 3</td>
<td>Introduction to SolidWorks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLT 101 2</td>
<td>Survey of the Plastics Industry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLT 110 3</td>
<td>Plastics and Polymer Materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLT 111 3</td>
<td>Plastics and Polymer Material Testing Methods</td>
<td>Co-Requisite: PLT 110</td>
</tr>
<tr>
<td></td>
<td>PLT 120 4</td>
<td>Plastics Manufacturing Processes I</td>
<td>PLT 101</td>
</tr>
<tr>
<td></td>
<td>PLT 130 2</td>
<td>Thermoforming I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLT 135 2</td>
<td>Thermoforming II</td>
<td>PLT 130 or Permission of Instructor</td>
</tr>
<tr>
<td></td>
<td>PLT 180 3</td>
<td>Plastics Internship I</td>
<td>Permission of Internship Coordinator and a minimum of 15 credits in PLT courses</td>
</tr>
<tr>
<td></td>
<td>PLT 225 3</td>
<td>Production Planning and Control</td>
<td>PLT 101 or Permission of Instructor</td>
</tr>
<tr>
<td></td>
<td>PLT 235 3</td>
<td>Manufacturing Quality Systems</td>
<td>PLT 101 or Permission of Instructor</td>
</tr>
<tr>
<td></td>
<td>PLT 250 4</td>
<td>Plastics Product Development</td>
<td>PLT 101, PLT 110, PLT 120 and PLT 130</td>
</tr>
</tbody>
</table>

8-11 hours (number depends on credits needed to reach degree minimum) must come from any combination of the following courses: ENG 222, Group III (ANT, ECO, PSY only), Group IV (from MTA list only - see page 2), or Group V (BIS, BUS, CIS, DRF, IND, WLD only)
# Suggested Sequence of Courses

**YEAR 1 - SEMESTER 1: 16 CREDITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Freshman English Composition</td>
<td>3</td>
</tr>
<tr>
<td>DRF 120</td>
<td>Introduction to CAD</td>
<td>3</td>
</tr>
<tr>
<td>or DRF 210</td>
<td>Solid Works</td>
<td>[3]</td>
</tr>
<tr>
<td>PLT 101</td>
<td>Survey of the Plastics Industry</td>
<td>2</td>
</tr>
<tr>
<td>PLT 110</td>
<td>Plastics and Polymer Materials</td>
<td>3</td>
</tr>
<tr>
<td>PLT 111</td>
<td>Plastics and Polymer Material Testing Methods</td>
<td>3</td>
</tr>
<tr>
<td>PLT 130</td>
<td>Thermoforming I</td>
<td>2</td>
</tr>
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</table>

**YEAR 1 - SEMESTER 2: 15-17 CREDITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SPE 101</td>
<td>Fundamentals of Communications</td>
<td>3</td>
</tr>
<tr>
<td>or SPE 257</td>
<td>Public Speaking</td>
<td>[3]</td>
</tr>
<tr>
<td>MAT 170</td>
<td>Technical Math II</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 124</td>
<td>Pre-calculus (Recommended for Ferris Transfer)</td>
<td>[5]</td>
</tr>
<tr>
<td>Elective</td>
<td>Select from Approved List</td>
<td>3</td>
</tr>
<tr>
<td>PLT 120</td>
<td>Plastics Manufacturing Processes I</td>
<td>4</td>
</tr>
<tr>
<td>PLT 135</td>
<td>Thermoforming II</td>
<td>2</td>
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</table>

**YEAR 1 - SUMMER: 3 CREDITS**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PLT 180</td>
<td>Plastics Internship I</td>
<td>3</td>
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</table>

**YEAR 2 - SEMESTER 1: 15-16 CREDITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SCI 200</td>
<td>Science, Technology &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>PLT 225</td>
<td>Production Planning and Control</td>
<td>3</td>
</tr>
<tr>
<td>PLT 235</td>
<td>Manufacturing Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>Select from Approved List (select Two Courses)</td>
<td>6-7</td>
</tr>
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</table>

**YEAR 2 - SEMESTER 2: 16-18 CREDITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHY 103</td>
<td>Applied Physics</td>
<td>3</td>
</tr>
<tr>
<td>or PHY 105</td>
<td>College Physics I</td>
<td>[5]</td>
</tr>
<tr>
<td>HUM 200</td>
<td>Modernity and Culture</td>
<td>3</td>
</tr>
<tr>
<td>SSC 200</td>
<td>Social Science &amp; Contemporary America</td>
<td>3</td>
</tr>
<tr>
<td>PLT 250</td>
<td>Plastics Product Development (3 Lecture, 2 Lab)</td>
<td>4</td>
</tr>
<tr>
<td>Elective</td>
<td>Select from Approved List</td>
<td>3</td>
</tr>
</tbody>
</table>
ASSOCIATE IN APPLIED SCIENCE
RADIOGRAPHY

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC. A minimum of 74 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course #</td>
<td>Course Title</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisites to the Program – 17 - 19 credit hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALH 100</td>
<td>Medical Terminology</td>
<td></td>
</tr>
<tr>
<td>CIS 100</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>ENG 111</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>MAT 104</td>
<td>Basic Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 101 or a minimum grade of &quot;C&quot; in MAT 102 OR equivalent</td>
</tr>
<tr>
<td>BIO 138</td>
<td>Human Anatomy and Physiology</td>
<td>BIO 101 (minimum grade of C)</td>
</tr>
<tr>
<td>OR BIO 141 AND</td>
<td>Anatomy &amp; Physiology I AND</td>
<td>BIO 101 (minimum grade of C) or equivalent</td>
</tr>
<tr>
<td>BIO 142</td>
<td>Anatomy &amp; Physiology II</td>
<td>BIO 141</td>
</tr>
</tbody>
</table>

Completion of BIO 141 and BIO 142 is recommended to students intending to transfer to a four-year institution.

Other Required Courses – 12 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 101 OR SPE 257</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to General Psychology</td>
<td></td>
</tr>
<tr>
<td>SSC 200 OR HUM 200</td>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
<tr>
<td>OR HUM 253</td>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
</tr>
</tbody>
</table>

Radiography Coursework - 45 credit hours

First Semester

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 100</td>
<td>Introduction to Radiologic Technology</td>
<td>Admission to the program; Corequisite: RAD 110</td>
</tr>
<tr>
<td>RAD 110</td>
<td>Radiation Physics</td>
<td>Admission to the program; Corequisite: RAD 100</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 115</td>
<td>Principles of Radiographic Exposure</td>
<td>RAD 100, RAD 110; Corequisite: RAD 130</td>
</tr>
<tr>
<td>RAD 130</td>
<td>Radiographic Procedures I</td>
<td>RAD 100, RAD 110. Corequisite: RAD 115</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 175</td>
<td>Radiographic Procedures II</td>
<td>RAD 115, RAD 130; Corequisite: RAD 180</td>
</tr>
<tr>
<td>RAD 180</td>
<td>Clinical Experience I</td>
<td>RAD 115, RAD 130; Corequisite: RAD 175</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 201</td>
<td>Clinical Issues in Radiography I</td>
<td>RAD 175, RAD 180; Corequisite: RAD 205, RAD 211, RAD 213, RAD 215, BIO 110</td>
</tr>
<tr>
<td>RAD 205</td>
<td>Clinical Experience II</td>
<td>RAD 175, RAD 180. Corequisite: RAD 201, RAD 211, RAD 213, RAD 215, BIO 110</td>
</tr>
<tr>
<td>RAD 211</td>
<td>Sectional Anatomy</td>
<td>RAD 175, RAD 180; Corequisite: RAD 201, RAD 205, RAD 213, RAD 215, BIO 110</td>
</tr>
<tr>
<td>RAD 213</td>
<td>Radiation Protection</td>
<td>RAD 175, RAD 180; Corequisite: RAD 201, RAD 205, RAD 211, RAD 215, BIO 110</td>
</tr>
<tr>
<td>RAD 215</td>
<td>Radiation Biology</td>
<td>RAD 175, RAD 180; Corequisite: RAD 201, RAD 205, RAD 211, RAD 213, BIO 110</td>
</tr>
</tbody>
</table>

Fifth Semester

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 217</td>
<td>Radiologic Techniques II</td>
<td>RAD 201, RAD 205, RAD 211, RAD 213, RAD 215, BIO 110, Corequisite: RAD 221, RAD 230, RAD 250</td>
</tr>
<tr>
<td>RAD 221</td>
<td>Clinical Issues in Radiography II</td>
<td>RAD 201, RAD 205, RAD 211, RAD 213, RAD 215, BIO 110, Corequisites RAD 217, RAD 221, RAD 250</td>
</tr>
<tr>
<td>RAD 230</td>
<td>Radiographic Quality Assurance</td>
<td>RAD 201, RAD 205, RAD 211, RAD 213, RAD 215, BIO 110, Corequisites RAD 217, RAD 221, RAD 250</td>
</tr>
<tr>
<td>RAD 250</td>
<td>Clinical Experience III</td>
<td>RAD 201, RAD 205, RAD 211, RAD 213, RAD 215, BIO 110, Corequisites RAD 217, RAD 221, RAD 230</td>
</tr>
</tbody>
</table>

Important program notes and schedule of courses on reverse (print version) or page two (digital version).
NOTES:
* All courses in a semester must be passed with a minimum grade of “C” to progress to the next semester.
* BIO 138 (or BIO 141 & BIO 142 each) must be passed with a minimum grade of “B-“.
* If students have taken science courses prior to admission into a specific health program, the courses must have been completed within five (5) years of the date the student formally begins the program
* Prerequisites for this program may be repeated only once.

SUGGESTED SEQUENCE (after completion of pre-requisites)

FIRST SEMESTER
RAD 100  Introduction to Radiologic Technology
RAD 110  Radiation Physics
SPE 101  Fundamentals of Communication
OR   SPE 257 Public Speaking (Recommended this Semester)

SECOND SEMESTER
PSY 101  Introduction of General Psychology (Recommended this Semester)
RAD 115  Principles of Radiographic Exposure
RAD 130  Radiographic Procedures I
HUM 200  Modernity & Culture
OR   HUM 253 American Culture
SSC 200  The Social Sciences & Contemporary America

THIRD SEMESTER
RAD 175  Radiographic Procedures II
RAD 180  Clinical Experience I

FOURTH SEMESTER
RAD 201  Clinical Issues in Radiography I
RAD 205  Clinical Experience II
RAD 211  Sectional Anatomy
RAD 213  Radiation Protection
RAD 215  Radiation Biology

FIFTH SEMESTER
RAD 217  Radiologic Techniques II
RAD 221  Clinical Issues in Radiography II
RAD 230  Quality Assurance
RAD 250  Clinical Experience III
ASSOCIATE DEGREE IN NURSING

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 69 credits is required to complete this program. Prerequisites to apply to the Nursing Program: Completion of Group I and Group II courses. See reverse (print) or page 2 (digital) for important program notes.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Speaking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Anatomy and Physiology</td>
<td>BIO 101 (minimum grade of C)</td>
<td></td>
</tr>
<tr>
<td>Anatomy &amp; Physiology I AND</td>
<td>BIO 101 (minimum grade of C) or equivalent</td>
<td></td>
</tr>
<tr>
<td>Anatomy &amp; Physiology II</td>
<td>BIO 141</td>
<td></td>
</tr>
<tr>
<td>Microbiology</td>
<td>BIO 101 with a minimum grade of C, OR High School Advanced Placement Biology course, completed within the past 3 years, with a minimum grade of &quot;B&quot;</td>
<td></td>
</tr>
<tr>
<td>Basic Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 101 or minimum grade of &quot;C&quot; in MAT 102 OR equivalent</td>
<td></td>
</tr>
<tr>
<td>The Social Sciences &amp; Contemporary America</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
<td></td>
</tr>
<tr>
<td>Modernity &amp; Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
<td></td>
</tr>
<tr>
<td>American Culture</td>
<td>ENG 111 and either SPE 101 or 257 (minimum grade of &quot;C&quot; in each)</td>
<td></td>
</tr>
<tr>
<td>Organic &amp; Biochemistry for Allied Health</td>
<td>Proven competency in basic chemistry by earning a minimum grade of &quot;C&quot; in CHM 105 (or an equivalent college chemistry course), earning a minimum grade of &quot;B&quot; or better in a High School chemistry course (within the last 3 years), or with permission from the instructor</td>
<td></td>
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</table>

Applied Arts & Sciences (Group V) - 44 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
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<tbody>
<tr>
<td>NUR 121</td>
<td>5 5</td>
<td>Admission to the Nursing Program, Corequisites: NUR 124, NUR 150, NUR 151</td>
</tr>
<tr>
<td>NUR 124</td>
<td>4 12</td>
<td>Admission to the Nursing Program, Corequisites: NUR 121, NUR 150, NUR 151</td>
</tr>
<tr>
<td>NUR 150</td>
<td>2.5 2.5</td>
<td>Admission to the Nursing Program, Corequisites: NUR 121, NUR 124, NUR 151</td>
</tr>
<tr>
<td>NUR 151</td>
<td>0.5 1</td>
<td>Admission to the Nursing Program, Corequisites: NUR 121, NUR 124, NUR 150</td>
</tr>
<tr>
<td>NUR 152</td>
<td>1 1</td>
<td>Successful completion of NUR 121, NUR 124, NUR 150, Corequisites: NUR 125, NUR 128</td>
</tr>
<tr>
<td>NUR 125</td>
<td>4 4</td>
<td>Successful completion of NUR 121, NUR 124, NUR 150, Corequisites: NUR 152, NUR 128</td>
</tr>
<tr>
<td>NUR 128</td>
<td>4 12</td>
<td>Successful completion of NUR 121, NUR 124, NUR 150, Corequisites: NUR 125, NUR 152</td>
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<tr>
<td>NUR 221</td>
<td>4 4</td>
<td>Fall cohort: Successful completion of NUR 152, NUR 125, NUR 128. Winter Cohort: successful completion of NUR 225, NUR 226, NUR 227, Corequisites: NUR 222</td>
</tr>
<tr>
<td>NUR 222</td>
<td>2 6</td>
<td>Fall cohort: Successful completion of NUR 152, NUR 125, NUR 128. Winter Cohort: successful completion of NUR 225, NUR 226, NUR 227, Corequisites: NUR 222</td>
</tr>
<tr>
<td>NUR 223</td>
<td>2 2</td>
<td>Fall cohort: Successful completion of NUR 152, NUR 125, NUR 128. Winter Cohort: successful completion of NUR 225, NUR 226, NUR 227, Corequisites: NUR 224</td>
</tr>
<tr>
<td>NUR 224</td>
<td>2 6</td>
<td>Fall cohort: Successful completion of NUR 152, NUR 125, NUR 128. Winter Cohort: successful completion of NUR 225, NUR 226, NUR 227, Corequisites: NUR 223</td>
</tr>
<tr>
<td>NUR 225</td>
<td>4 4</td>
<td>Fall cohort: Successful completion of NUR 221, NUR 222, NUR 223, NUR 224. Winter Cohort: successful completion of NUR 125, NUR 128, NUR 152, Corequisites: NUR 226</td>
</tr>
<tr>
<td>NUR 226</td>
<td>4 12</td>
<td>Fall cohort: Successful completion of NUR 221, NUR 222, NUR 223, NUR 224. Winter Cohort: successful completion of NUR 125, NUR 128, NUR 152, Corequisites: NUR 225</td>
</tr>
<tr>
<td>NUR 227</td>
<td>2 2</td>
<td>Fall cohort: Successful completion of NUR 221, NUR 222, NUR 223, NUR 224. Winter Cohort: successful completion of NUR 125, NUR 128, NUR 152</td>
</tr>
<tr>
<td>NUR 228</td>
<td>3 9</td>
<td>Successful completion of all NUR courses, HUM 200, SSC 200, Corequisites: None</td>
</tr>
</tbody>
</table>

Nursing Readmission Courses

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 132</td>
<td>1 3</td>
<td>Successful completion of NUR 121, NUR 124, Corequisites: NUR 150</td>
</tr>
<tr>
<td>NUR 133</td>
<td>3 3.5</td>
<td>Current LPN license</td>
</tr>
</tbody>
</table>
ASSOCIATE DEGREE IN NURSING

NOTE: All NUR courses in a semester must be passed with a minimum grade of “78%” to progress to the next semester. BIO 138 (or BIO 141 & BIO 142 each) must be passed with a minimum grade of “B-” to enter the program. BIO 141 & BIO 142 courses must also be taken at the same institution. If students have taken BIO 138 (or BIO 141 & BIO 142) courses prior to admission to the Nursing Program, the courses must have been completed within five (5) years of the date the student formally begins the Nursing Program. Prerequisites may be repeated only once, which includes withdrawals.

NOTE: Admissions to the MMCC Nursing Program is based on a Selective Admission Process. Highly Recommended Courses will be awarded additional bonus points toward overall admission score. For further information contact the Nursing and Health Technology Department. Final acceptance into the nursing program is based on results of a criminal background check.

NOTE: All NUR courses require a signature on the registration form from the Director of Nursing. Entry level students will receive this form at the orientation scheduled for incoming nursing students.

### FALL COHORT

<table>
<thead>
<tr>
<th>Fall Semester: Total (12) Credits</th>
<th>Winter Semester: Total (12) Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 121: Fundamentals of Nursing</td>
<td>NUR 121: Fundamentals of Nursing</td>
</tr>
<tr>
<td>(5) Credits</td>
<td>(5) Credits</td>
</tr>
<tr>
<td>NUR 124: Fundamentals of Nursing Clinical I</td>
<td>NUR 124: Fundamentals of Nursing Clinical I</td>
</tr>
<tr>
<td>(4) Credits</td>
<td>(4) Credits</td>
</tr>
<tr>
<td>NUR 150: Pharmacology in Nursing</td>
<td>NUR 150: Pharmacology in Nursing</td>
</tr>
<tr>
<td>(2.5) Credits</td>
<td>(2.5) Credits</td>
</tr>
<tr>
<td>NUR 151: Assessment in Nursing</td>
<td>NUR 151: Assessment in Nursing</td>
</tr>
<tr>
<td>(0.5) Credits</td>
<td>(0.5) Credits</td>
</tr>
</tbody>
</table>

### WINTER COHORT

<table>
<thead>
<tr>
<th>Winter Semester: Total (12) Credits</th>
<th>Spring Semester: Total (12) Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 125: Nursing Care of Adults I</td>
<td>NUR 125: Nursing Care of Adults I</td>
</tr>
<tr>
<td>(4) Credits</td>
<td>(4) Credits</td>
</tr>
<tr>
<td>NUR 128: Nursing Care of Adults Clinical II</td>
<td>NUR 128: Nursing Care of Adults Clinical II</td>
</tr>
<tr>
<td>(4) Credits</td>
<td>(4) Credits</td>
</tr>
<tr>
<td>NUR 152: Nutrition Across the Lifespan</td>
<td>NUR 152: Nutrition Across the Lifespan</td>
</tr>
<tr>
<td>(1) Credit</td>
<td>(1) Credit</td>
</tr>
<tr>
<td>SSC 200: The Social Sciences &amp; Contemporary America (Recommended this Semester)</td>
<td>SSC 200: The Social Sciences &amp; Contemporary America (Recommended this Semester)</td>
</tr>
<tr>
<td>(3) Credits</td>
<td>(3) Credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NUR 133: Transition for Advanced Standing Nurses</th>
<th>(3) Credits</th>
</tr>
</thead>
</table>

### FALL SEMESTER: Total (13) Credits

<table>
<thead>
<tr>
<th>Fall Semester: Total (13) Credits</th>
<th>Winter Semester: Total (13) Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 221: Family Centered Nursing</td>
<td>NUR 221: Family Centered Nursing</td>
</tr>
<tr>
<td>(4) Credits</td>
<td>(4) Credits</td>
</tr>
<tr>
<td>NUR 222: Family Centered Nursing Clinical III</td>
<td>NUR 222: Family Centered Nursing Clinical III</td>
</tr>
<tr>
<td>(2) Credits</td>
<td>(2) Credits</td>
</tr>
<tr>
<td>NUR 223: Mental Health Nursing</td>
<td>NUR 223: Mental Health Nursing</td>
</tr>
<tr>
<td>(2) Credits</td>
<td>(2) Credits</td>
</tr>
<tr>
<td>NUR 224: Mental Health Nursing Clinical III</td>
<td>NUR 224: Mental Health Nursing Clinical III</td>
</tr>
<tr>
<td>(2) Credits</td>
<td>(2) Credits</td>
</tr>
<tr>
<td>HUM 200: Modernity &amp; Culture</td>
<td>HUM 200: Modernity &amp; Culture</td>
</tr>
<tr>
<td>(3) Credits</td>
<td>(3) Credits</td>
</tr>
<tr>
<td>OR HUM 253: American Culture</td>
<td>HUM Recommended this semester</td>
</tr>
</tbody>
</table>

### WINTER SEMESTER: Total (13) Credits

<table>
<thead>
<tr>
<th>Winter Semester: Total (13) Credits</th>
<th>Spring Semester: Total (3) Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 225: Nursing Care of Adults II</td>
<td>NUR 225: Nursing Care of Adults II</td>
</tr>
<tr>
<td>(4) Credits</td>
<td>(4) Credits</td>
</tr>
<tr>
<td>NUR 226: Nursing Care of Adults Clinical IV</td>
<td>NUR 226: Nursing Care of Adults Clinical IV</td>
</tr>
<tr>
<td>(4) Credits</td>
<td>(4) Credits</td>
</tr>
<tr>
<td>NUR 227: Leadership in Nursing</td>
<td>NUR 227: Leadership in Nursing</td>
</tr>
<tr>
<td>(2) Credits</td>
<td>(2) Credits</td>
</tr>
<tr>
<td>HUM 200: Modernity &amp; Culture</td>
<td>HUM 200: Modernity &amp; Culture</td>
</tr>
<tr>
<td>OR HUM 253: American Culture</td>
<td>HUM Recommended this semester</td>
</tr>
<tr>
<td>(3) Credits</td>
<td>(3) Credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OR HUM 253: American Culture</th>
<th>American Culture</th>
</tr>
</thead>
</table>

### SPRING SEMESTER: Total (3) Credits

<table>
<thead>
<tr>
<th>Spring Semester: Total (3) Credits</th>
<th>Spring Semester: Total (3) Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 228: Preceptorship Clinical V</td>
<td>NUR 228: Preceptorship Clinical V</td>
</tr>
<tr>
<td>(3) Credits</td>
<td>(3) Credits</td>
</tr>
</tbody>
</table>

63
ASSOCIATE IN SCIENCE:
HEALTH SCIENCES TRANSFER

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program. A minimum of 15 credit hours must consist of 200 level coursework.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Communication Skills (Group I)</strong> - 9 credit hours</td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td>ENG 222</td>
<td>3</td>
<td>Expository Writing &amp; Research</td>
<td>Minimum grade of “C” in ENG 111</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Science and Mathematics (Group II)</strong> – 15 credit hours</td>
<td></td>
</tr>
<tr>
<td>MAT 107*</td>
<td>3</td>
<td>College Algebra</td>
<td>Minimum grade of “C” in MAT 105 or equivalent</td>
</tr>
<tr>
<td>OR MAT 114</td>
<td>3</td>
<td>Mathematical Reasoning</td>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>3</td>
<td>Introduction to Probability and Statistics</td>
<td>Minimum grade of “C” in MAT 104 or equivalent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*MAT 124, 126, 225, 226, and 230 also satisfy this requirement. Other MAT courses do not.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Social Sciences (Group III)</strong> - 9 credit hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two courses selected from the Designated MTA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Natural Science list</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Humanities (Group IV)</strong> - 9 credit hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two courses selected from the Designated MTA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Science list</td>
<td>NOTE: Courses cannot be from same discipline.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Group III Elective</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two courses selected from the Designated MTA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Humanities list</td>
<td>NOTE: Courses cannot be from same discipline.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Group IV Elective</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Electives - credits to reach minimum of 62</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select courses from Group II (except CIS), Group V (ALH, CIS 100, MRI, NUR, RAD, PHT, PTA), or Group VI (HED, PED).</td>
<td></td>
</tr>
</tbody>
</table>

Students are encouraged to meet with an Academic Advisor to select courses that are appropriate for academic and career goals. Distribution Group and Designated MTA course lists on reverse (print version) or page two (digital version)
### GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

Students completing transfer degrees are required to complete the following:

- **Communication Skills**: Three courses -- ENG 111, ENG 222, and either SPE 101 or SPE 257.
- **Quantitative Reasoning**: One of the following -- MAT 107, 114, 124, 126, 212, 225, 226, or 230.
- **Natural Science**: Two courses from the MTA list below, each from a different subject area.
- **Social Science**: Two courses from the MTA list below, each from a different subject area.
- **Humanities**: Two courses from the MTA list below, each from a different subject area.

### MICHIGAN TRANSFER AGREEMENT

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of course work in general education areas. If a student has successfully completed the appropriate coursework, that student's transcript will be marked "MTA Satisfied". Participating four year colleges and universities will accept that as completion of 30 credits toward their general education requirements. (NOTE: Not all four year colleges and universities participate in MTA. Students intending to transfer should contact their intended transfer institution.) The MTA requires that colleges list coursework which is applicable. The following are MMCC's Designated MTA courses (by MTA area):

#### Designated MTA Courses -- Each course must be completed with a minimum grade of C

<table>
<thead>
<tr>
<th>Category</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>ENG 111</td>
</tr>
<tr>
<td>Communication</td>
<td>Either ENG 222, SPE 101, or SPE 257</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Either MAT 114, MAT 212, or one of the following: MAT 107, 124, 126, 212, 225, 226, 230</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Two of the following, each from a different subject area: BIO 100, 101, 131, 135, 138, 141, 142, 201, 203, 210, 245; CHM 105, 106, 111, 112, 241, 242, 245, 246, 255, 256; GEL 101, 112; PHY 105, 211; PSC 101, 102; SCI 200. At least one must be a laboratory science.</td>
</tr>
<tr>
<td>Social Science</td>
<td>Two of the following, each from a different subject area: ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200</td>
</tr>
<tr>
<td>Humanities</td>
<td>Two of the following, each from a different subject area: ENG 112, 201, 202, 205, 206, 213, 289; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 102, 183, 200, 205, 210, 225, 253; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275</td>
</tr>
</tbody>
</table>

If necessary, additional Designated MTA courses to total or exceed 30 credit hours.

### DISTRIBUTION GROUPS

- **Group I - Communication Skills**: ENG (104, 110,111, 222, 225), JOR, SPE
- **Group II - Science and Mathematics**: BIO, CHM, CIS (110, 111, 121, 131, 151, 152, 175, 176), GEL, PSC, PHY, SCI; MAT
- **Group III - Social Science**: ANT, ECO, HES, HIS (211, 212, 223, 251, 252), POL, PSY, SSC, SOC
- **Group IV - Humanities and Fine Arts**: Humanities -- ENG (112, 201, 202, 205, 206, 211, 212, 213, 281), FRN, GER, HIS (101, 102), HUM, JPN, MUS (275), PHL, REL, SPN, TAI (275); Fine Arts -- ART, MUS (except 275), TAI (except 275)
- **Group V - Applied Arts & Sciences**: ACC, ALH, AMS, BUS, BIS, ECE, CIS (except 110, 111, 121, 131, 151, 152, 175, 176), CST, CJS, DRF, ENT, HRA, IND, LEN, NUR, MRI, PHT, PLT, PTA, RAD, WLD
- **Group VI - Health/Physical Education**: HED, PED
- **Group VII - Education**: EDU
- **Group VIII - Personal Development**: MID
ASSOCIATE IN SCIENCE
MATH AND SCIENCE STUDIES TRANSFER

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 15 of these credit hours must be taken at MMCC.

A minimum of 62 credits is required to complete this program. A minimum of 15 credits overall must be at the 200 level.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>ENG 222</td>
<td>Expository Writing &amp; Research</td>
<td>Minimum grade of &quot;C&quot; in ENG 111</td>
</tr>
<tr>
<td>SPE 101</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

**Communication Skills (Group I) - 9 credit hours**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 107*</td>
<td>College Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 105 or equivalent</td>
</tr>
<tr>
<td>OR MAT 114</td>
<td>Mathematical Reasoning</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>Introduction to Probability and Statistics</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
</tbody>
</table>

*MAT 124, 126, 225, 226, and 230 also satisfy this requirement. Other MAT courses do not.

**Science and Mathematics (Group II) – 24 credit hours**

A minimum of 9 credits of Mathematics and Natural Science courses must be at the 200 level. (SCI 200 excluded)

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 107*</td>
<td>College Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 105 or equivalent</td>
</tr>
<tr>
<td>OR MAT 114</td>
<td>Mathematical Reasoning</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td>OR MAT 212</td>
<td>Introduction to Probability and Statistics</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
</tbody>
</table>

**Social Sciences (Group III) - 6 credit hours**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 courses selected from the Designated MTA Natural Science list</td>
<td></td>
<td>NOTE: Courses cannot be from same discipline.</td>
</tr>
<tr>
<td>Selected from MAT, BIO, CHM, ENV, GEL, PHY, PSC or SCI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selected from MAT, BIO, CHM, ENV, GEL, PHY, PSC or SCI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selected from MAT, BIO, CHM, ENV, GEL, PHY, PSC or SCI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selected from MAT, BIO, CHM, ENV, GEL, PHY, PSC or SCI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Humanities (Group IV) - 6 credit hours**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 courses selected from the Designated MTA Humanities list</td>
<td></td>
<td>NOTE: Courses cannot be from same discipline.</td>
</tr>
</tbody>
</table>

**Electives - credits to reach minimum of 62**

Courses must be selected from Groups I, II, III, IV, VI and VIII. (Maximum of 9 credit hours from Group VI - HED or PED.) MID courses and courses numbered below the 100 level are not applicable.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
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<tr>
<td>Elective</td>
<td></td>
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<tr>
<td>Elective</td>
<td></td>
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<tr>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
</tr>
</tbody>
</table>

Students should consult with an Academic Advisor to select courses appropriate for academic and career goals.

Distribution Group and Designated MTA course lists on reverse (print version) or page two (digital version).
## ASSOCIATE IN SCIENCE

### MATH AND SCIENCE STUDIES TRANSFER

#### GENERAL EDUCATION REQUIREMENTS FOR ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

Students completing transfer degrees are required to complete the following:

- **Communication Skills**: Three courses -- ENG 111, ENG 222, and either SPE 101 or SPE 257
- **Quantitative Reasoning**: One of the following -- MAT 107, MAT 114, or MAT 212
- **Natural Science**: Two courses from the MTA list below, each from a different subject area.
- **Social Science**: Two courses from the MTA list below, each from a different subject area.
- **Humanities**: Two courses from the MTA list below, each from a different subject area.

#### MICHIGAN TRANSFER AGREEMENT

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of course work in general education areas. If a student has successfully completed the appropriate coursework, that student’s transcript will be marked “MTA Satisfied”. Participating four year colleges and universities will accept that as completion of 30 credits toward their general education requirements. (NOTE: Not all four year colleges and universities participate in MTA. Students intending to transfer should contact their intended transfer institution.) The MTA requires that colleges list coursework which is applicable. The following are MMCC’s Designated MTA courses (by MTA area):

| Designated MTA courses -- each course must be completed with a minimum grade of C |
| English Composition | ENG 111 |
| Communication | Either ENG 222, SPE 101, or SPE 257 |
| Mathematics | Either MAT 114, MAT 212, or one of the following: MAT 107, 124, 126, 212, 225, 226, 230 |
| Natural Science | Two of the following, each from a different subject area: BIO 100, 101, 131, 135, 138, 141, 142, 201, 203, 210, 245; CHM 105, 106, 111, 112, 241, 242, 245, 246, 255, 256; GEL 101, 112; PHY 105, 211; PSC 101, 102; SCI 200. At least one must be a laboratory science. |
| Social Science | Two of the following, each from a different subject area: ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200 |
| Humanities | Two of the following, each from a different subject area: ENG 112, 201, 202, 205, 206, 213, 238; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 102, 183, 200, 205, 210, 225, 253; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275 |

If necessary, additional Designated MTA courses to total or exceed 30 credit hours.

#### DISTRIBUTION GROUPS

| Group I - Communication Skills: ENG (104, 110, 111, 222, 225), JOR, SPE |
| Group II - Science and Mathematics: BIO, CHM, CIS (110, 111, 121, 131, 151, 152, 175, 176), GEL, PSC, PHY, SCI; MAT |
| Group III - Social Science: ANT, ECO, HES, HIS (211, 212, 223, 251, 252), POL, PSY, SSC, SOC |
| Group IV - Humanities and Fine Arts: Humanities -- ENG (112, 201, 202, 205, 206, 211, 212, 231, 281), FRN, GER, HIS (101, 102), HUM, JPN, MUS (275), PHL, REL, SPN, TAI (275); Fine Arts -- ART, MUS (except 275), TAI (except 275) |
| Group V - Applied Arts & Sciences: ACC, ALH, AMS, BUS, BIS, ECE, CIS (except 110, 111, 121, 131, 151, 152, 175, 176), CST, CJS, DRF, ENT, HRA, IND, LEN, NUR, MRI, PHT, PLT, PTA, RAD, WLD |
| Group VI - Health/Physical Education: HED, PED |
| Group VII - Education: EDU |
| Group VIII - Personal Development: MID |
A minimum of 35.5 credits is required to complete this program.

### FIRST SEMESTER (Fall) - 17.5 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 104</td>
<td>2</td>
<td>Basic Automotive Electricity</td>
<td></td>
</tr>
<tr>
<td>AMS 110</td>
<td>4.5</td>
<td>Engine Fundamentals &amp; Overhaul</td>
<td></td>
</tr>
<tr>
<td>AMS 125</td>
<td>5</td>
<td>Engine Performance I</td>
<td></td>
</tr>
<tr>
<td>CIS 100</td>
<td>3</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>WLD 126</td>
<td>3</td>
<td>Basic Welding I</td>
<td></td>
</tr>
</tbody>
</table>

### SECOND SEMESTER (Winter) - 18 credit hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 116</td>
<td>3</td>
<td>Electrical Systems I: Electrical Accessories</td>
<td>AMS 104 (may be taken concurrently) or Instructor approval</td>
</tr>
<tr>
<td>AMS 124</td>
<td>4</td>
<td>Automotive Heating &amp; Air Conditioning</td>
<td></td>
</tr>
<tr>
<td>AMS 126</td>
<td>5</td>
<td>Engine Performance II</td>
<td>AMS 104 and AMS 125, OR State certified in tuneup area</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”.</td>
</tr>
<tr>
<td>MAT 101</td>
<td>3</td>
<td>Basic Mathematics</td>
<td></td>
</tr>
</tbody>
</table>

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

For Gainful Employment information see reverse (print version) or page two (electronic version)
Gainful Employment Information

**COST**
- How much will this program cost me?*
  - Tuition and fees: $6,142
  - Books and supplies: $1,256
  - On-campus room & board: not offered

**SUCCEED**
- How long will it take me to complete this program?
  - The program is designed to take 30 weeks to complete. Of those that completed the program in 2014-2015, *%* finished in 30 weeks.
  - *Fewer than 10 students completed this program in 2014-15. The number who finished within the normal time has been withheld to preserve the confidentiality of the students.*

**FINANCING**
- What financing options are available to help me pay for this program?
  - Federal loans:
  - Private education loans:
  - Institutional financing plan:

**ADDITIONAL LINKS AND INFORMATION**

Occupation: Automotive Service Technicians and Mechanics
SOC code: 49-3023.00
Occupational Profile URL: [http://www.onetonline.org/link/summary/49-3023.00](http://www.onetonline.org/link/summary/49-3023.00)

To visit links referenced in the graphic, go to:
CERTIFICATE OF ACHIEVEMENT:  
AUTOMOTIVE TECHNOLOGY (2 YEAR)

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 63 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course #</strong></td>
<td><strong>Course Title</strong></td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with minimum grade of “C”</td>
</tr>
<tr>
<td>SPE 101 OR SPE 257</td>
<td>Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>MAT 101</td>
<td>Basic Mathematics</td>
<td></td>
</tr>
<tr>
<td>CIS 100</td>
<td>Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>AMS 104</td>
<td>Basic Automotive Electricity</td>
<td></td>
</tr>
<tr>
<td>AMS 110</td>
<td>Engine Fundamentals &amp; Overhaul</td>
<td></td>
</tr>
<tr>
<td>AMS 116</td>
<td>Electrical Systems I: Electrical Accessories</td>
<td>AMS 104 (may be taken concurrently) or Instructor approval.</td>
</tr>
<tr>
<td>AMS 124</td>
<td>Automotive Heating &amp; Air Conditioning</td>
<td></td>
</tr>
<tr>
<td>AMS 125</td>
<td>Engine Performance I</td>
<td></td>
</tr>
<tr>
<td>AMS 126</td>
<td>Engine Performance II</td>
<td>AMS 104, AMS 125, OR State certified in engine tune-up area.</td>
</tr>
<tr>
<td>AMS 205</td>
<td>Steering &amp; Suspension Systems</td>
<td></td>
</tr>
<tr>
<td>AMS 206</td>
<td>Brakes</td>
<td></td>
</tr>
<tr>
<td>AMS 214</td>
<td>Automatic Transmissions</td>
<td></td>
</tr>
<tr>
<td>AMS 222</td>
<td>Manual Transmissions</td>
<td></td>
</tr>
<tr>
<td>AMS 223</td>
<td>Electrical Systems II: Engine Electrical Systems</td>
<td></td>
</tr>
<tr>
<td>AMS 232</td>
<td>Automotive Co-op</td>
<td>Passed first, second, and third semester AMS courses with minimum grade of “C”. Permission of the Co-op Coordinator required. Professional tools required.</td>
</tr>
<tr>
<td>WLD 126</td>
<td>Basic Welding I</td>
<td></td>
</tr>
</tbody>
</table>

Note: AMS coursework must be completed with a minimum grade of “C” to be eligible for AMS 232 Automotive Co-op.

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
CERTIFICATE OF ACHIEVEMENT:
AUTOMOTIVE TECHNOLOGY (2 YEAR)

RECOMMENDED COURSE SEQUENCE
FIRST SEMESTER
AMS 104
AMS 110
AMS 125

SECOND SEMESTER
AMS 116
AMS 124
AMS 126

THIRD SEMESTER
AMS 205
AMS 206
AMS 223

FOURTH SEMESTER
AMS 214
AMS 222
AMS 232

AMS 104 ➔ AMS 116 ➔ AMS 126 ➔ AMS 232
(AMS 214 & 222 can be concurrent)
Gainful Employment Information

Additional Links and Information

Occupation: Automotive Service Technicians and Mechanics
SOC code: 49-3023.00
Occupational Profile URL: http://www.onetonline.org/link/summary/49-3023.00

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
### CERTIFICATE OF ACHIEVEMENT

**BUSINESS INFORMATION SYSTEMS**

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 31 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>FIRST SEMESTER (Fall) - 15 credit hours</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>BIS 120 3 3 Office Mathematics</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>CIS 100 3 3 Introduction to Information Systems</td>
<td>Touch keyboarding skills recomended</td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>BIS 140 3 3 Beginning Word Processing/Keyboarding</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>BIS 164 3 3 Business Communications I</td>
<td>Recommend concurrent enrollment in BIS 140 OR CIS 100 OR knowledge of correct keyboarding techniques</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SECOND SEMESTER (Winter) - 16 credit hours</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>BIS 127 4 4 Applied Office Accounting</td>
<td>BIS 120 for Business Information Systems students only</td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>BUS 151 3 3 Introduction to Business Issues</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>BIS 142 3 3 Intermediate Word Processing/Keyboarding</td>
<td>BIS 140 or equivalent</td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>ENG 111 3 3 Freshman English Composition</td>
<td>Placement into ENG 111, or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>SPE 101 3 3 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>OR SPE 257 3 3 Public Speaking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GAINFUL EMPLOYMENT INFORMATION

ADDITIONAL LINKS AND INFORMATION
Occupation: Executive Secretaries and Executive Administrative Assistants
SOC code: 43-6011.00
Occupational Profile URL: http://www.onetonline.org/link/summary/43-6011.00

To visit links referenced in the graphic, go to: https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
CERTIFICATE OF ACHIEVEMENT:
COMPUTER ASSISTED DRAFTING (CAD)

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 38 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRST SEMESTER - 16 credit hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRF 101</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DRF 120</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DRF 210</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>IND 101</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CIS 100</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Touch keyboarding skills recommended

| **SECOND SEMESTER - 16 credit hours** | | |
| DRF 201 | 3 | 3 | Mechanical Detail Drafting w/CAD |
| DRF 211 | 3 | 3 | Advanced SolidWorks Applications |
| IND 113 | 4 | 4 | CNC Machining |
| ENG 111 | 3 | 3 | Freshman English Composition |
| MAT 170 | 3 | 3 | Technical Math II |

ENG 110 with a minimum grade of C; or placement into ENG 111

| **THIRD SEMESTER - 6 credit hours** | | |
| DRF 280 | 3 | 3 | CAD Program and Software Certification |

Minimum grade of “B” in DRF 101, 105, 120, 201, 210, and 211 OR successful completion of competency exam with minimum score of 83%

| | | |
| SPE 101 | 3 | 3 | Fundamentals of Communication |
| OR SPE 257 | 3 | 3 | Public Speaking |

For Gainful Employment information see reverse (print version) or page two (electronic version)
Gainful Employment Information

ADDITIONAL LINKS AND INFORMATION
Occupation: CAD Designer
SOC code: 17-3013.00
Occupational Profile URL: http://www.onetonline.org/link/summary/17-3013.00

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
CERTIFICATE OF ACHIEVEMENT:
EARLY CHILDHOOD EDUCATION

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 31 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

Prerequisites to the Program:

Required:

- Health Requirements Met
- Validation of no Evidence of Child Abuse or Neglect per Public Act 68 of 1993
- Successful ICHAT and National Sex Offender Registry background searches

Recommended: First Aid and CPR Certification

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FIRST SEMESTER (Fall) - 14 credit hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECE 101</td>
<td>4 4 Introduction to Early Childhood Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECE 112</td>
<td>4 5 Infancy</td>
<td>Co-requisite: ECE 101 or permission of the ECE Coordinator</td>
</tr>
<tr>
<td></td>
<td>CIS 100</td>
<td>3 3 Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td></td>
<td>ENG 111</td>
<td>3 3 Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td></td>
<td>MAT 101</td>
<td>3 3 Basic Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSY 101</td>
<td>3 3 Introduction to General Psychology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPE 101</td>
<td>3 3 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR SPE 257</td>
<td>3 3 Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Please Note: If going for an Associate’s degree, all courses must be completed with a minimum grade of “C”.

For Gainful Employment information see reverse (print version) or page two (electronic version)
Gainful Employment Information

ADDITIONAL LINKS AND INFORMATION
Occupation: Child Care Worker
SOC Code: 39-9011.00
Occupational Profile URL: http://www.onetonline.org/link/summary/39-9011.00

To visit links refenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
CERTIFICATE OF ACHIEVEMENT:
MACHINE TOOL OPERATION

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.

A minimum of 33 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRST SEMESTER (Fall) - 17 credit hours</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ IND 101</td>
<td>4</td>
<td>4 Basic Machine Shop Practices</td>
<td></td>
</tr>
<tr>
<td>□ IND 113</td>
<td>4</td>
<td>4 CNC Machining</td>
<td></td>
</tr>
<tr>
<td>□ DRF 120</td>
<td>3</td>
<td>3 Introduction to AutoCAD</td>
<td></td>
</tr>
<tr>
<td>□ MAT 170</td>
<td>3</td>
<td>3 Technical Mathematics II</td>
<td>MAT 101 OR equivalent</td>
</tr>
<tr>
<td>□ WLD 126</td>
<td>3</td>
<td>4 Basic Welding I</td>
<td></td>
</tr>
<tr>
<td><strong>SECOND SEMESTER (Winter) - 16 credit hours</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ IND 102</td>
<td>4</td>
<td>4 Machine Tool Practices II</td>
<td>IND 101 and a minimum grade of “C” in MAT 104 or equivalent</td>
</tr>
<tr>
<td>□ IND 116</td>
<td>4</td>
<td>4 CNC Programming</td>
<td>IND 101, IND 113, minimum grade of “C” in MAT 105 or MAT 170 or equivalent</td>
</tr>
<tr>
<td>□ IND 140</td>
<td>3</td>
<td>3 Metallurgy and Industrial Materials</td>
<td></td>
</tr>
<tr>
<td>□ DRF 105</td>
<td>2</td>
<td>2 Intro to Geometric Dimensioning &amp; Tolerancing</td>
<td>DRF 101; IND 101 Recommended</td>
</tr>
<tr>
<td>□ ENG 111</td>
<td>3</td>
<td>3 Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with grade a minimum grade of “C”</td>
</tr>
</tbody>
</table>

For Gainful Employment information see reverse (print version) or page two (electronic version)
CERTIFICATE OF ACHIEVEMENT:
MACHINE TOOL OPERATION

COST
O. How much will this program cost me?
A. Tuition and fees: $4,476
Books and supplies: $1,327
On-campus room & board: not offered

What other costs are there for this program?
For further program cost information click here.
*The amounts shown above include costs for the entire program assuming normal time to completion. Note that this information is subject to change.

SUCCESS
O. How long will it take me to complete this program?
A. The program is designed to take 30 weeks to complete. Of those that completed the program in 2014-2015, % finished in 30 weeks.

* Fewer than 10 students completed this program in 2014-15. The number who finished within the normal time has been withheld to preserve the confidentiality of the students.

O. What are my chances of getting a job when I graduate?
A. The job placement rate for students who completed this program is %.

* This institution is not currently required to calculate a job placement rate for program completers.

FINANCING
O. What financing options are available to help me pay for this program?
A. Financing for this program may be available through grants, scholarships, loans (federal and private) and institutional financing plans. The median amount of debt for program graduates is shown below:

- Federal loans: *
- Private education loans: *
- Institutional financing plan: *

* There were fewer than 10 graduates in this program. Median amounts are withheld to preserve the confidentiality of graduates.

ADDITIONAL LINKS AND INFORMATION
Occupation: Computer-Controlled Machine Tool Operator
SOC code: 51-4011.00
Occupational Profile URL: . http://www.onetonline.org/link/summary/51-4011.00

To visit links referenced in the graphic, go to: https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
# Certificate of Achievement: Pharmacy Technician Specialist

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 41 credits is required to complete this program.

The Pharmacy Technician Program is a one-year Certificate of Achievement program emphasizing community and institutional pharmacy practice where technicians work under the supervision of a registered pharmacist. Role play, communication, teamwork, and conflict management are emphasized. The comprehensive training program has laboratory course instruction which emphasizes hand-on skill development. The program includes 320 hours of an institutional and community pharmacy practicum. The coursework prepares the individual for the national certification.

PHT courses must be taken in sequence.

### Credit Hours

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRE-REQUISITES TO THE PROGRAM</strong> 8 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALH 100</td>
<td>2</td>
<td>2 Medical Terminology</td>
<td></td>
</tr>
<tr>
<td>BIO 120</td>
<td>3</td>
<td>3 Introduction to Human Disease</td>
<td>ALH 100 recommended</td>
</tr>
<tr>
<td>MAT 104</td>
<td>3</td>
<td>3 Intermediate Algebra</td>
<td>Minimum grade of &quot;C&quot; in MAT 104 or equivalent</td>
</tr>
<tr>
<td><strong>OTHER REQUIRED COURSES</strong> 9 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 100</td>
<td>3</td>
<td>3 Introduction to Information Systems</td>
<td>Touch keyboarding skills recommended</td>
</tr>
<tr>
<td>ENG 111</td>
<td>3</td>
<td>3 Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of &quot;C&quot;</td>
</tr>
<tr>
<td>SPE 101</td>
<td>3</td>
<td>3 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>OR SPE 257</td>
<td>3</td>
<td>3 Public Speaking</td>
<td></td>
</tr>
<tr>
<td><strong>SEMESTER I</strong> 9 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHT 104</td>
<td>4</td>
<td>5 Orientation to Pharmacy &amp; Community Pharmacy Practice</td>
<td>Corequisites: PHT 105, PHT 106</td>
</tr>
<tr>
<td>PHT 105</td>
<td>2</td>
<td>2 Pharmacy Law</td>
<td>Corequisites: PHT 104, PHT 106</td>
</tr>
<tr>
<td>PHT 106</td>
<td>3</td>
<td>3 Pharmaceutical Calculations</td>
<td>Corequisites: PHT 104, PHT 105</td>
</tr>
<tr>
<td><strong>SEMESTER II</strong> 8 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHT 113</td>
<td>4</td>
<td>5 Orientation to Institutional Pharmacy Practice</td>
<td>PHT 104, PHT 105, PHT 106. Corequisite: PHT 114</td>
</tr>
<tr>
<td>PHT 114</td>
<td>4</td>
<td>4.5 Pharmacology for Pharmacy Technicians</td>
<td>PHT 104, PHT 105, PHT 106. Corequisite: PHT 113</td>
</tr>
<tr>
<td><strong>SEMESTER III</strong> 7 credit hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHT 115</td>
<td>7</td>
<td>15 Pharmacy Technician Clinical</td>
<td>PHT 113, PHT 114, SPE 101 OR SPE 257</td>
</tr>
</tbody>
</table>

### Notes:

* All courses in a semester must be passed with a minimum grade of “C” to progress to the next semester.
* Students must maintain a minimum GPA of 2.0.
* PHT courses may be repeated only once.
* Limited Enrollment Program. Student must be admitted to PHT program prior to registering for PHT classes.

For Gainful Employment information see reverse (print version) or page two (electronic version)
CERTIFICATE OF ACHIEVEMENT:
PHARMACY TECHNICIAN SPECIALIST

Gainful Employment Information

PROGRAM COSTS

How much will this program cost me?

Tuition and Fees (in-district rates)
$3,181.00
Books and Supplies
$752.90
On-campus room and board
not offered

PROGRAM FINANCING

What are my financing options to pay for the program?

*Financing for this program may be available through grants, scholarships, loans (federal and private) and institutional financing plans. The median amount of debt for program graduates is shown below:*

Federal Loans
Less than 10 graduates received loans. Median amounts are withheld to preserve the confidentiality of the loan recipients.

Private Educational Loans
Less than 10 graduates received loans. Median amounts are withheld to preserve the confidentiality of the loan recipients.

Institutional Financing Loans
Less than 10 graduates received loans. Median amounts are withheld to preserve the confidentiality of the loan recipients.

PROGRAM SUCCESS

How long will it take me to complete this program?

The program is designed to take 45 weeks to complete.

Of those that completed the program in 2012-2013, 0% finished in 45 weeks.

What are the chances of getting a job when I graduate?

This institution is not currently required to calculate a job placement rate for program completers.

ADDITIONAL LINKS AND INFORMATION

Occupation: Pharmacy Technician
SOC code: 29-2052.00
Occupational Profile URL:  [http://www.onetonline.org/link/summary/29-2052.00](http://www.onetonline.org/link/summary/29-2052.00)
A minimum of 31 credits is required to complete this program.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ ENG 111 3</td>
<td>Freshman English Composition Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
<tr>
<td>□ SPE 101 3</td>
<td>Fundamentals of Communication</td>
</tr>
<tr>
<td>OR SPE 257 3</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>

**Science and Mathematics (Group II) – 3 credit hours**

| □ MAT 170 3 | Technical Math II Minimum grade of “C” in MAT 101 OR minimum grade of “C” in MAT 102 OR equivalent |

**Applied Arts and Sciences (Group V) - 32 credit hours**

| □ DRF 120 3 | Introduction to AutoCAD                                                                   |
| OR DRF 210 3 | Introduction to SolidWorks                                                                 |
| □ PLT 101 2 | Survey of the Plastics Industry                                                            |
| □ PLT 110 3 | Plastics and Polymer Materials                                                             |
| □ PLT 111 3 | Plastics and Polymer Material Testing Co-Requisite: PLT 110                               |
| □ PLT 120 4 | Plastics Manufacturing Processes I PLT 101                                                |
| □ PLT 130 2 | Thermoforming I PLT 130 or Permission of Instructor                                       |
| □ PLT 135 2 | Thermoforming II                                                                          |

3 hours must come from any combination of the following courses

| □ BIS 127 4 | Applied Office Accounting BiS 120                                                        |
| □ BUS 122 3 | Management Theory & Practice                                                             |
| □ BUS 151 3 | Introduction to Business Issues                                                         |
| □ BUS 171 3 | Principles of Sales                                                                      |
| □ BUS 222 3 | Labor and Management Relations BUS 122                                                    |
| □ BUS 241 3 | Supervision and Personnel Administration                                                  |
| □ BUS 250 3 | Entrepreneurial Management                                                               |
| □ CIS 100 3 | Introduction to Information Systems Touch keyboarding skills recommended                |
| □ DRF 201 3 | Mechanical Detail Drawing w/CAD DRF 101 and DRF 120                                        |
| □ ECO 201 3 | Principles of Economics - Microeconomics                                                  |
| □ ECO 202 3 | Principles of Economics - Macroeconomics                                                  |
| □ ENT 221 3 | Marketing Strategies for Entrepreneurs                                                   |
| □ IND 101 4 | Basic Machine Shop Practices                                                             |
| □ IND 113 4 | CNC Machining                                                                             |
| □ IND 140 3 | Metallurgy and Industrial Materials                                                      |
| □ PSY 103 3 | Human Relations                                                                          |
| □ WLD 125 6 | Basic Industrial Welding                                                                 |

A suggested sequence of courses is presented on reverse (printed version) or page two (digital version).
Suggested Sequence of Courses

YEAR 1 - SEMESTER 1: 16 CREDITS

ENG 111   Freshman English Composition       3
DRF 120 Introduction to CAD       3
   or DRF 210   Solid Works       [3]
PLT 101    Survey of the Plastics Industry   2
PLT 110    Plastics and Polymer Materials     3
PLT 111    Plastics and Polymer Material Testing Methods   3
PLT 130    Thermoforming I           2

YEAR 1 - SEMESTER 2: 15 CREDITS

SPE 101 Fundamentals of Communications 3
   or SPE 257    Public Speaking       [3]
MAT 170 Technical Math II               3
Elective – Select from Approved List     3
PLT 120    Plastics Manufacturing Processes I 4
PLT 135    Thermoforming II           2
CERTIFICATE OF ACHIEVEMENT:
PLASTICS ENGINEERING TECHNOLOGY

ADDITIONAL LINKS AND INFORMATION
Occupation: Computer-Controlled Machine Tool Operator
SOC code: 51-4011.00
Occupational Profile URL: http://www.onetonline.org/link/summary/51-4011.00

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
CERTIFICATE OF ACHIEVEMENT:
WELDING TECHNOLOGY

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 35 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST SEMESTER (Fall) - 12 credit hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[ ] WLD 126</td>
<td>3</td>
<td>4</td>
<td>SENSE Ia</td>
<td></td>
</tr>
<tr>
<td>[ ] DRF 101</td>
<td>3</td>
<td>3</td>
<td>Technical Drawing</td>
<td></td>
</tr>
<tr>
<td>[ ] IND 140</td>
<td>3</td>
<td>3</td>
<td>Metallurgy &amp; Industrial Materials</td>
<td></td>
</tr>
<tr>
<td>[ ] MAT 170</td>
<td>3</td>
<td>3</td>
<td>Technical Mathematics II</td>
<td>MAT 101 OR equivalent</td>
</tr>
</tbody>
</table>

SECOND SEMESTER (Winter) - 12 credit hours

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] WLD 127</td>
<td>3</td>
<td>4</td>
<td>SENSE Ib</td>
<td></td>
</tr>
<tr>
<td>[ ] WLD 130</td>
<td>3</td>
<td>4</td>
<td>Metal Fabrication</td>
<td>WLD 125 OR WLD 126, DRF 101</td>
</tr>
<tr>
<td>[ ] DRF 120</td>
<td>3</td>
<td>3</td>
<td>Introduction to AutoCAD</td>
<td></td>
</tr>
<tr>
<td>[ ] ENG 111</td>
<td>3</td>
<td>3</td>
<td>Freshman English Composition</td>
<td>Placement into ENG 111 or ENG 110 with a minimum grade of “C”</td>
</tr>
</tbody>
</table>

THIRD SEMESTER (Spring) - 11 credit hours

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] WLD 225</td>
<td>8</td>
<td>12</td>
<td>Advanced Welding</td>
<td></td>
</tr>
<tr>
<td>[ ] WLD 245</td>
<td>3</td>
<td>4</td>
<td>Pipe Welding OR</td>
<td>WLD 125 OR WLD 127</td>
</tr>
<tr>
<td>OR IND 101</td>
<td>3</td>
<td>4</td>
<td>Basic Machine Shop Practices</td>
<td></td>
</tr>
</tbody>
</table>

04/21/16 2016-2017 Version

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CERTIFICATE OF ACHIEVEMENT:
WELDING TECHNOLOGY

Gainful Employment Information

ADDITIONAL LINKS AND INFORMATION
Occupation: Welders, Cutters, Solderers, and Brazers
SOC code: 51-4121.00
Occupational Profile URL:  http://www.onetonline.org/link/summary/51-4121.00

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
**PLANNING GUIDE**

**MICHIGAN TRANSFER AGREEMENT (MTA)**

NOTE: Students enrolled prior to Fall 2014 may complete the MACRAO Endorsement; students first enrolled Fall 2014 (or later) will not be eligible and should pursue the Michigan Transfer Agreement (MTA) instead. Eligible students will have until Fall 2019 to complete the MACRAO Endorsement. Colleges and universities that currently accept MACRAO Endorsements will continue to do so regardless of date of completion. STUDENTS ARE STRONGLY ENCOURAGED TO WORK WITH INTENDED TRANSFER INSTITUTIONS TO DETERMINE WHICH ENDORSEMENT AND WHICH COURSEWORK WILL BEST FULFILL THEIR ACADEMIC PLANS.

A minimum of 30 credits is required to complete the MTA. At least 1 course must be taken at Mid Michigan Community College. Coursework transferred from other institutions that does not have a direct MMCC equivalent may be eligible to satisfy MTA, dependent on evaluation.

<table>
<thead>
<tr>
<th>Designated MTA courses: EACH course must be completed with a minimum grade of &quot;C&quot;.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Composition</strong></td>
</tr>
<tr>
<td>☐ ENG 111</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
</tr>
<tr>
<td>☐ ENG 222</td>
</tr>
<tr>
<td>☐ OR SPE 101</td>
</tr>
<tr>
<td>☐ OR SPE 257</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
</tr>
<tr>
<td>☐ MAT 107</td>
</tr>
<tr>
<td>☐ OR MAT 114</td>
</tr>
<tr>
<td>☐ OR MAT 212</td>
</tr>
<tr>
<td><strong>Natural Science</strong></td>
</tr>
<tr>
<td>Two of the following, each from a different subject area: BIO 100, 101, 131, 135, 141, 142, 201, 203, 210, 245; CHM 105, 106, 111, 112, 241, 242; GEL 101, 112; PHY 105, 211; PSC 101, 102; SCI 200. At least one must be a laboratory science.</td>
</tr>
<tr>
<td>☐ MTA Natural Science</td>
</tr>
<tr>
<td>☐ MTA Natural Science</td>
</tr>
<tr>
<td><strong>Social Science</strong></td>
</tr>
<tr>
<td>Two of the following, each from a different subject area: ANT 170; ECO 110, 201, 202; HIS 211, 212, 223; POL 201, 250; PSY 101, 103, 205, 212, 240, 285; SOC 101, 200, 202, 220, 250, 289; SSC 111, 200</td>
</tr>
<tr>
<td>☐ MTA Social Science</td>
</tr>
<tr>
<td>☐ MTA Social Science</td>
</tr>
<tr>
<td><strong>Humanities</strong></td>
</tr>
<tr>
<td>Two of the following, each from a different subject area: ENG 112, 201, 202, 205, 206, 213, 253, 289; FRN 101, 102; GER 101, 102; HIS 101, 102; HUM 101, 102, 183, 200, 205, 210, 225, 253, 283; MUS 275; PHL 201, 205, 210, 220, 250; REL 111, 200, 225, 250; SPN 101, 102, 201; TAI 275</td>
</tr>
<tr>
<td>☐ MTA Humanities</td>
</tr>
<tr>
<td>☐ MTA Humanities</td>
</tr>
<tr>
<td><strong>Additional Coursework</strong></td>
</tr>
<tr>
<td>If necessary, additional Designated MTA courses (from above lists) to total or exceed 30 credit hours.</td>
</tr>
<tr>
<td>☐ MTA Additional Course (if needed)</td>
</tr>
<tr>
<td>☐ MTA Additional Course (if needed)</td>
</tr>
</tbody>
</table>

Many Michigan four-year colleges and universities are part of the Michigan Transfer Agreement. The Agreement requires completion of 30 credit hours of coursework in general education areas. If a student has successfully completed the appropriate coursework, that student's transcript will be marked “MTA Satisfied”. Participating four-year colleges and universities will accept that as completion of 30 credits toward their general education requirements. Students intending to transfer should contact their intended transfer institution. The MTA requires that colleges list coursework which is applicable.
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 19 credits is required to complete this program.

COURSES ARE DELIVERED IN A COMPRESSED SEQUENTIAL FORMAT
Note: This course of study is not intended for students without collegiate or professional experience. Please see pre-requisite "a" below.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ HRA 251</td>
<td>3 3</td>
<td>Geothermal Basics</td>
<td>HRA 240 OR MMCC HRA Heating Specialist Certificate and MMCC Refrigeration Specialist Certificate OR Associate in Applied Science: Heating Refrigeration Air Conditioning from an accredited college or university OR Lead faculty approved significant, verifiable field experience in the heating, refrigeration and air conditioning industry.</td>
</tr>
<tr>
<td>□ HRA 254</td>
<td>3 4</td>
<td>Air Source Heat Pumps</td>
<td>HRA 251</td>
</tr>
<tr>
<td>□ HRA 261</td>
<td>3 3</td>
<td>Geothermal System Design</td>
<td>HRA 251</td>
</tr>
<tr>
<td>□ HRA 262</td>
<td>3 3</td>
<td>Geothermal Loop Systems</td>
<td>HRA 251</td>
</tr>
<tr>
<td>□ HRA 263</td>
<td>3 3</td>
<td>Closed Loop Ground Source Heat Pump Installation Workshop IGSHPA</td>
<td>HRA 251</td>
</tr>
<tr>
<td>□ HRA 265</td>
<td>4 6</td>
<td>Geothermal Research and Development</td>
<td>HRA 251</td>
</tr>
</tbody>
</table>
ADVANCED CREDENTIAL:
GEOTHERMAL TECHNOLOGY

GAINFUL EMPLOYMENT INFORMATION

ADDITIONAL LINKS AND INFORMATION
Occupation: Heating and Air Conditioning Mechanics and Installers
SOC code: 49-9021.01
Occupational Profile URL: http://www.onetonline.org/link/summary/49-9021.02

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
# HRA Course Sequencing Schedule

<table>
<thead>
<tr>
<th>Course #</th>
<th>Contact/Billing Hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRA 116</td>
<td>3</td>
<td>Fundamentals of Electricity</td>
<td></td>
</tr>
<tr>
<td>HRA 205</td>
<td>2</td>
<td>Motors &amp; Controls</td>
<td>HRA 116</td>
</tr>
<tr>
<td>HRA 106</td>
<td>3</td>
<td>Heating Fundamentals</td>
<td>HRA 116</td>
</tr>
<tr>
<td>HRA 108</td>
<td>3</td>
<td>Heating Systems</td>
<td>HRA 106, HRA 116</td>
</tr>
<tr>
<td>HRA 223</td>
<td>3</td>
<td>Residential HVAC Load Determination</td>
<td>HRA 108</td>
</tr>
</tbody>
</table>

## FIRST SEMESTER (Fall) - 14 credit hours

- HRA 116 3 4 Fundamentals of Electricity
- HRA 205 2 3 Motors & Controls
- HRA 106 3 4 Heating Fundamentals
- HRA 108 3 4 Heating Systems
- HRA 223 3 3 Residential HVAC Load Determination

## SECOND SEMESTER (Winter) - 9 credit hours

- HRA 225 3 3 Residential HVAC Distribution/Design
- HRA 105 3 4 Hydronics
- HRA 285 3 3 Co-op (Heating, Refrigeration & Air Conditioning)

## THIRD SEMESTER (Spring) - 3 credit hours

- HRA 215 3 4 HRA Controls

Note: FAST TRACK COURSES ARE DELIVERED IN A COMPRESSED SEQUENTIAL FORMAT

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 26 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version).

Note: FAST TRACK COURSES ARE DELIVERED IN A COMPRESSED SEQUENTIAL FORMAT
Gainful Employment Information

ADDITIONAL LINKS AND INFORMATION
Occupation: Heating and Air Conditioning Mechanics and Installers
SOC code: 49-9021.01
Occupational Profile URL: [http://www.onetonline.org/link/summary/49-9021.01](http://www.onetonline.org/link/summary/49-9021.01)

To visit links referenced in the graphic, go to:
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 26 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

Note: FAST TRACK COURSES ARE DELIVERED IN A COMPRESSED SEQUENTIAL FORMAT

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Contact/Billing Hours</th>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST SEMESTER (Fall) - 5 credit hours</td>
<td></td>
<td>HRA 116</td>
<td>3 4 Fundamentals of Electricity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HRA 205</td>
<td>2 3 Motors &amp; Controls</td>
<td>HRA 116</td>
</tr>
<tr>
<td>SECOND SEMESTER (Winter) - 12 credit hours</td>
<td></td>
<td>HRA 102</td>
<td>3 4 Refrigeration Fundamentals</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HRA 104</td>
<td>3 4 Residential Refrigeration</td>
<td>HRA 102</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HRA 285</td>
<td>3 3 Co-op (Heating, Refrigeration &amp; Air Conditioning)</td>
<td>Minimum of 12 Credits in HRA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HRA 204</td>
<td>3 4 Light Commercial Refrigeration</td>
<td>HRA 102</td>
</tr>
<tr>
<td>THIRD SEMESTER (Spring) - 9 credit hours</td>
<td></td>
<td>HRA 198</td>
<td>1 1 EPA Refrigerant Handler Certification</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HRA 220</td>
<td>2 2 Commercial Refrigeration Design</td>
<td>HRA 204</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HRA 215</td>
<td>3 4 HRA Controls</td>
<td>HRA 116</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HRA 240</td>
<td>3 4 Advanced Commercial Refrigeration</td>
<td>HRA 104, HRA 116, HRA 204</td>
</tr>
</tbody>
</table>

HRA Course Sequencing Schedule

Fast Track – Fall Start
(Day Classes)
Fall Semester
HRA 116 (3) credits
HRA 205 (2) credits
HRA 106 (3) credits
HRA 108 (3) credits
HRA 223 (3) credits
Total (14) credits

Winter Semester
HRA 225 (3) credits
HRA 105 (3) credits
HRA 102 (3) credits
HRA 104 (3) credits
HRA 285 (3) credits
HRA 204 (3) credits
Total (18) credits

Spring Semester
HRA 198 (1) credits
HRA 220 (2) credits
HRA 215 (3) credits
HRA 240 (3) credits
Total (9) credits
GAINFUL EMPLOYMENT INFORMATION

ADDITIONAL LINKS AND INFORMATION
Occupation: Refrigeration Mechanics and Installers
SOC code: 49-9021.02
Occupational Profile URL: http://www.onetonline.org/link/summary/49-

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
# TRAINING CREDENTIAL:
## LEGAL OFFICE SPECIALIST

You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 27 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

Prerequisites to Program: CIS 100 (3) Introduction to Information Processing Systems and BIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester - 12 credit hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ BIS 120</td>
<td>3 3 Office Mathematics</td>
<td></td>
</tr>
<tr>
<td>□ BIS 142</td>
<td>3 3 Intermediate Keyboarding</td>
<td>BIS 140 OR equivalent</td>
</tr>
<tr>
<td>□ BIS 138</td>
<td>3 3 Basic Legal Terminology</td>
<td>BIS 140 OR equivalent OR concurrent enrollment, BIS 164 recommended OR concurrent enrollment.</td>
</tr>
<tr>
<td>□ BIS 164</td>
<td>3 3 Business Communication I</td>
<td>Recommend concurrent enrollment in BIS 140 OR CIS 100 OR knowledge of correct keyboarding techniques.</td>
</tr>
</tbody>
</table>

| **Second Semester - 15 credit hours**                                                     |
| □ BUS 153 | 3 3 Business Law                                   |                                                                               |
| □ BIS 250 | 3 3 Records Management                            | CIS 100, BIS 140 OR equivalent                                                |
| □ BIS 254 | 3 3 Office Procedures                              |                                                                               |
| □ BIS 200 | 3 3 Advanced Word Processing Applications          | BIS 140 OR equivalent, CIS 100 recommended.                                   |
| □ BIS 264 | 3 3 Business Communication II                     | BIS 164 OR ENG 111                                                           |

For Gainful Employment information see reverse (print version) or page two (electronic version)
Gainful Employment Information

ADDITIONAL LINKS AND INFORMATION
Occupation: Legal Secretary
SOC code: 43-6012.00
Occupational Profile URL: http://www.onetonline.org/link/summary/43-6012.00

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ped-2015-16
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 26 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

Prerequisites to Program: CIS 100 (3) Introduction to Information Systems and BIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH 100</td>
<td>2</td>
<td>Medical Terminology</td>
<td></td>
</tr>
<tr>
<td>BIS 120</td>
<td>3</td>
<td>Office Mathematics</td>
<td></td>
</tr>
<tr>
<td>BIS 142</td>
<td>3</td>
<td>Intermediate Keyboarding</td>
<td>BIS 140 OR equivalent</td>
</tr>
<tr>
<td>BIS 164</td>
<td>3</td>
<td>Business Communication I</td>
<td>Recommend concurrent enrollment in BIS 140 OR CIS 100 OR knowledge of correct keyboarding techniques.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credit hours</th>
<th>Course Title</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH 112</td>
<td>3</td>
<td>Insurance Billing</td>
<td>Prerequisite: ALH 100</td>
</tr>
<tr>
<td>BIS 250</td>
<td>3</td>
<td>Records Management</td>
<td>CIS 100, BIS 140 OR equivalent</td>
</tr>
<tr>
<td>BIS 255</td>
<td>3</td>
<td>Medical Office Procedures</td>
<td>CIS 100, BIS 140</td>
</tr>
<tr>
<td>BIS 264</td>
<td>3</td>
<td>Business Communication II</td>
<td>BIS 164 OR ENG 111</td>
</tr>
<tr>
<td>CIS 130</td>
<td>3</td>
<td>Applications with Microcomputers</td>
<td>CIS 100 with a minimum grade of “C”</td>
</tr>
</tbody>
</table>

For Gainful Employment information see reverse (print version) or page two (electronic version)
TRAINING CREDENTIAL:
MEDICAL OFFICE SPECIALIST

GAINFUL EMPLOYMENT INFORMATION

ADDITIONAL LINKS AND INFORMATION
Occupation: Office Clerks and General Secretaries
SOC code: 43-9061.00
Occupational Profile URL http://www.onetonline.org/link/summary/43-9061.00

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
You, as a student, are responsible for meeting requirements for your curriculum. Your advisor is available for consultation. At least 6 of these credit hours must be taken at MMCC.

A minimum of 27 credits is required to complete this program.

For Gainful Employment information see reverse (print version) or page two (electronic version)

Prerequisites to Program: CIS 100 (3) Introduction to Information Systems and BIS 140 (3) Beginning Word Processing/Keyboarding OR equivalent.

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<td>First Semester - 12 credit hours</td>
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<tr>
<td>☐ BIS 120</td>
<td>3</td>
<td>Office Mathematics</td>
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<tr>
<td>☐ BIS 142</td>
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<td>Intermediate Keyboarding</td>
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<td>☐ BIS 164</td>
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<td>Business Communication I</td>
<td>Recommend concurrent enrollment in BIS 140 OR CIS 100 OR knowledge of correct keyboarding techniques.</td>
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<td>☐ CIS 203</td>
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<td>OR BIS 136</td>
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<td>Terminology and Proofreading</td>
<td>BIS 164, ENG 111 may be taken concurrently</td>
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<td>☐ BIS 250</td>
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<td>☐ BIS 254</td>
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<td>☐ BIS 200</td>
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<td>OR CIS 221</td>
<td>3 3</td>
<td>Computers in Business</td>
<td>Prerequisite or Corequisite: ACC 201</td>
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For Gainful Employment information see reverse (print version) or page two (electronic version)
TRAINING CREDENTIAL:
RECORDS INFORMATION MANAGEMENT SPECIALIST

Gainful Employment Information

ADDITIONAL LINKS AND INFORMATION
Occupation: Office Clerk
SOC code: 43-9061.00
Occupational Profile URL: http://www.onetonline.org/link/summary/43-9061.00

To visit links referenced in the graphic, go to:
https://www.midmich.edu/academics/programs-of-study/all-degrees-credentials/ged-2015-16
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The College year is composed of two semesters, one fall and one winter, there is also one spring session, and the units of academic study are recorded in credit hours. Class dates and times are published on MidWeb.

EXAMPLE

ENG 201 English Literature I 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.

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.

(ACC) ACCOUNTING

ACC 201 Financial Accounting 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.

ACC 205 Payroll Accounting 3(4-0)
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 4(4-0)
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.
Prerequisites: Grade of C or better in ACC 201

ACC 231 Principles of Cost Accounting 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 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 recommended

ACC 252 Tax Accounting II 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 3(3-0)
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.
Prerequisites: CIS 130, ACC 211
ACC 275 Intermediate Accounting I 3(3-0)
ACC 275 is the first of two intermediate accounting courses that describe accounting theory and principles for defining, measuring, and reporting financial information, with an emphasis on Assets. The course will provide an opportunity to understand the challenges and limitations of accounting standards in order to critically evaluate and understand financial accounting. It will require the use of spreadsheets for problem solving and analysis.
Prerequisite: ACC.211 with a minimum grade of C

ACC 276 Intermediate Accounting II 3 (3-0)
ACC 276 is the second of two intermediate accounting courses that describe accounting theory and principles for defining, measuring, and reporting financial information, with an emphasis on Liabilities and Equity. Additionally, accounting for investments, leases, debt and earnings per share will be considered. Provides an opportunity to understand the challenges and limitations of accounting standards in order to critically evaluate and understand financial accounting. It will require the use of spreadsheets for problem solving and analysis.
Prerequisite: ACC.275 with a minimum grade of C

ACC 280 Co-Op 3(1-0)
Co-op is a capstone course planned for the last semester of the Associate in Applied Science: 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 Applied Science: Accounting Degree.

ACC 290 - 299 Selected Topics 3(3-0)
These courses are designed to investigate various topics in Accounting not included in current courses. Topics will be announced.

(ALH) ALLIED HEALTH

ALH 100 Medical Terminology 2(2-0)
This course is 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 112 Insurance Billing 3(3-0)
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, record keeping, and collection procedures.
Prerequisite: ALH 100

ALH 125 Introduction to the Health Care Environment 3(3-0)
This course is designed to introduce the allied health student to health care today, health care systems, functions and trends, ethical and legal responsibilities in health care, workplace safety, handling hazardous materials, reporting hazardous activities, emergency preparedness, ergonomics, infection control, controlling health care costs, historical background, interpersonal-relationships, future roles, and successful employment strategies. The student will be introduced to health care professional organizations. The course provides the student with the foundation upon which other courses build and expand.
Prerequisites: ALH 100

ALH 212 Clinical Procedures I 3(2-2)
This class is an introduction to common procedures performed in the medical office setting for the Medical Assistant. A course designed with emphasis on 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.
Prerequisite: Admission to the Medical Assistant Program
Corequisite: ALH 213

ALH 213 Pharmacology for Medical Assistants 3(2-2)
Competency-based objectives to guide Medical Assistant students in their study of each unit in the Pharmacology text. This class stresses the rights of drug administration, including drug administration procedures that include standard precautions, purpose, equipment/supplies, and procedure steps to administering medications. Emphasis is placed on the legal implications of drug therapy, safety, and accuracy in calculating and administering medications.
Prerequisite: Admission to the Medical Assistant Program
Corequisite: ALH 213

ALH 214 Clinical Procedures II 3(2-2)
Introduction to clinical duties of the Medical Assistant student related to medical specialties. Review of anatomy and physiology of the human body. Disorders of the human body, diagnostic and therapeutic procedures are emphasized and critical thinking is utilized in caring for patients in the medical office.
Prerequisites: ALH 212, ALH 213 with a minimum grade of C.
Corequisite: ALH 230
ALH 220 Medical Law and Ethics 3(3-0)
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 4(3-2)
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 212, ALH 213
Corequisite: ALH 214

ALH 250 Medical Assisting Office Externship 4(0.5-10.5)
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: ALH 212, ALH 213, ALH 214, ALH 230

ALH 260 Review of Clinical Procedures 5.5(3-5)
This course is designed for students who have taken ALH 212, ALH 213, ALH 214, and ALH 230 and did not complete their externship within 12 months of these courses. It is a review of the functions, roles and responsibilities of a medical assistant in a medical office setting. Students will practice competencies from textbook chapters on clinical skills like venipuncture, various injections, vital signs, EKGs, wound and patient care, sterile and infection control techniques and must demonstrate and perform them with 100% accuracy. Students will also review and assessed on their knowledge of system disorders, diagnostic techniques, therapeutic procedures, allergy testing, medication dosing, illnesses and disorders. Students will be given a comprehensive exam over chapters covered in the text and must pass with a minimum score of 75% to successfully complete the course.
Prerequisites: ALH.212, ALH.213, ALH.214, and ALH.230 and permission of MA Program Director

ALH 290 Special Topics - Review of Clinical Procedures 1(0.5-0)
This introduction to the basic principles underlying teaching and learning: learning theory, motivation, the exceptional learner, gender and cultural differences, and classroom management strategies. The course is designed to develop and enhance skills of allied health professional teaching in an allied health setting.
AMS 206 Brakes 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 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 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: 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 Co-Op 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.

AMS 295 Special Topics 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.

ANT) 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

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 115 Design I 3(3-0)
Elements and principles of design and experiences with materials in problem situations.

ART 120 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)
An introduction to the concepts and techniques of visual communication. The focus is on typography, page layout, grid structure, production requirements, design history and the design problem-solving process.

ART 137 Digital Photography 3(3-0)
An introduction to digital photography and computer software used in photo manipulations. Students will learn various techniques in creating enhanced images, including color balance, sizing, sharpening. Students will learn how to download images from digital cameras and to scan photographic prints and film. Students will learn correct file formats for output and print management. Discussions will also include composition, lighting, and personal creativity. Prerequisites: ART 110 or permission of instructor.

ART 138 Printmaking 3(3-0)
Introduction to the basic techniques of woodcut and printing as a fine art.

ART 152 Introduction to Website Design 3(3-0)
This course introduces the fundamentals of web design and development. Students will explore web technology topics and learn how to use HTML, CSS, JavaScript, and related technologies to construct web pages. As the final course outcome, students will build their own online portfolio or a website that acts as an individual portfolio piece. ART 152 is also cross-listed as CIS 135. Credit may not be earned in both classes.

ART 205 Drawing II 3(3-0)
A concentration of experimental media, techniques, spatial relationships, and conceptual processes of drawing. Prerequisite: ART 105
ART 206 Comic Book and Graphic Novel Illustration 3(3-0)
This course is designed to give students a comprehensive introduction into the concepts and techniques used in the creation of comics and sequential art. Students will explore character development, layout, timing and illustration styles used in this specialized field, with specific focus on both print and digital media outlets.

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 211 Page Layout I 3(3-0)
This course introduces the student to the software and tools used in page layout. Emphasis is on learning the software and tools and applying basic design principles in the production of files for final output. Students will learn the fundamentals of page layout, typography, effective use of color, proofing, and preparing print ready documents.

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 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)
A continuation of ART 135 with an emphasis on the integration of type and image in visual communication. Focuses on an exploration of tools, techniques, and hands-on skills required in the creation of professional illustrations and graphics.
Prerequisites: ART 135

ART 236 Graphic Design III 3(3-0)
Continuation of ART 235 with an emphasis on refining problem-solving skills required in a professional environment. Focuses on research and analysis of visual communication, as well as the creation of portfolio-building projects.
Prerequisite: ART 235 or permission of Instructor

ART 237 Photography II 3(3-0)
This course is 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 239 Page Layout II 3(3-0)
This course is a continuation of ART 211 Page Layout I. Students will be assigned advanced page layout projects. This course will examine all aspects of production as they relate to print, including correct document construction, color space and color systems, separations, preflight, print production and paper considerations. Projects will focus on the use of effective design principles, proper file preparation, preflight of files, and production process.
Prerequisite: ART 211

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, 205, 215, 236, and 239

ART 241 Portfolio 1(1-0)
In this course the student will be taken through the process of preparing an art portfolio, resume and artist statement based on their individual needs for the purpose of transfer to a 4-year college for further study or promotion of their artwork. Students will be guided through the process of selection of artwork, documentation, and compilation of the portfolio as well as the writing of a resume and artist statement.
Prerequisite: Permission of instructor

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 as ART 345 only if: 1) the student has successfully completed EDU 107; and 2) 45 clock hours of pre-professional experience in K-12 classroom.)

ART 237 Photography II 3(3-0)
This course is 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 247 Contemporary Photography 3(3-0)
This course is designed for the student who has completed Art 110 and Art 137 and now wishes additional hands-on practical experience using the concepts and principles learned in these classes. Students will learn more advanced techniques and will be able to apply these techniques to projects a professional photographer might encounter.
Prerequisites: Art 110 and Art 137

ART 252 Website Design II 3(3-0)
This course applies advanced web design and development techniques. Students will explore open source content management systems and use advanced HTML, CSS, JavaScript, and related web technologies to customize the functionality and appearance of dynamic websites. As the final course outcome, students will implement their own CMS with a responsive design and e-commerce features. ART 252 is also cross-listed as CIS 235. Credit may not be earned in both classes.
Prerequisite: CIS 135 or ART 152.

ART 254 Motion Graphics 3(3-0)
This course will focus on video pre and post-production for the purpose of commercial use, including video editing, sound production, operating production equipment, lighting and industry standard digital effects. Students will apply media and dynamic rich content to their motion graphics and video projects. Final course outcome is a video portfolio.

ART 255 Emerging Web Technologies 3(3-0)
This course is a continuation of ART.252 Website Design II. It introduces advanced, emerging technologies in web design/multimedia design and current emerging web technologies. This is a growing field and will give graphic design students opportunities to expand their background in current web technologies. The final course outcome is a functional, online portfolio.
Prerequisite: ART.252.

ART 256 Business in Art-Entrepreneur 3(3-0)
This course will train students in the business of art, graphic design and in an introduction to small business ownership. It is designed for students seeking key opportunities to attain professional development, self-employment and administrative potential in the art and design industry or to prepare students to transfer their coursework towards further undergraduate study.
Prerequisite: ART.252 or permission of instructor.

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 3(1-0)
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 3(1-0)
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

ART 290-299 Special Topics 3(3-0)
This course is designed to investigate various topics in Art that are not included in current courses. Topics will be announced. This course is offered based on demand.

(BIO) BIOLOGY

BIO 100 Introduction to Biology 4(3-2)
BIO 100 is a non-major, introductory course in Biology for students who have not had any previous Biology instruction and have no intention of obtaining a Biology or Health-related degree. Students will apply fundamental principles of Biology to evaluate and better understand current life sciences issues.

BIO 101 College Biology 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.

BIO 110 Concepts in Microbiology 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 with a minimum grade of C.

BIO 120 Introduction to Human Disease 3(3-0)
This course is designed to introduce the student to the structure of common diseases, signs, symptoms, causes and effects, as well as treatment. Students will learn how the different diseases relate to the different body systems, and other conditions. *ALH 100 Recommended

BIO 131 Basic Anatomy & Physiology 3(3-0)
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 with a minimum grade of C.

**BIO 135 Human Anatomy and Physiology 5.5(4-3)**
This course provides students with an intensive, in-depth introduction to the structure and function of all human body organ systems. The emphasis is on homeostasis of body systems under normal structure and function, with the inclusion of some pathologies. The laboratory portion includes dissections, study of anatomical models and slides, and physiological experiments. Prerequisites: BIO 101 with a minimum grade of C, or successful completion of the BIO 135 entrance exam.

**BIO 138 Human Anatomy and Physiology 6(4-4)**
This course provides students with an intensive, in-depth introduction to the structure and function of all human body organ systems. The emphasis is on homeostasis of body systems under normal structure and function, with the inclusion of some pathologies. The laboratory portion includes dissections, study of anatomical models and slides, and physiological experiments. Prerequisite: BIO 101 with a minimum grade of C, or successful completion of the BIO 138 entrance exam.

**BIO 141 Anatomy & Physiology I 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 system. Prerequisite: BIO 101 with a minimum grade of C.

**BIO 142 Anatomy & Physiology II 4(3-2)**
This course is a continuation of BIO 141. Topics include respiratory, excretory, endocrine, reproductive, circulatory and digestive systems. Emphasis is on physiology and integration of the systems of the body. Prerequisite: BIO 141.

**BIO 201 Botany 4(3-2)**
Structure and function of major groups of plants with emphasis on metabolism and reproduction. Prerequisite: BIO 101 with a minimum grade of C.

**BIO 202 Field Ecology 3(3-2)**
An introduction to a field study of basic ecology, with emphasis on the interactions between plants, animals, humans, and the environment. Prerequisite: BIO 101 recommended.

**BIO 203 Zoology 4(3-2)**
Topics cover fundamental principles of zoology including taxonomy, evolution, and characteristics of major animal phyla with emphasis on anatomy and physiology of selected groups. Lab will support exploration of animal groups using microscopic observations and dissections of preserved specimens. Prerequisite: BIO 101 with a minimum grade of C.

**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 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 with a minimum grade of C, OR High School Advanced Placement Biology course, completed within the past 3 years, with a minimum grade of B.

**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 with a minimum grade of C.

**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 & 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 1(1-0)
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 5(6-0)
Courses designed to investigate various topics in Biology not included in current courses. Topics will be announced.

(BIS) BUSINESS INFORMATION SYSTEMS

BIS 120 Office Mathematics 3(3-0)
This course covers basic mathematical operations & concepts as applied to a variety of business and personal situations. Examples of topics: review of arithmetic operations, fractions, decimals, mortgages, taxes, checking accounts, payroll, & consumer & business credit.

BIS 126 Introduction to Medical Transcription 3(3-0)
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.
Prerequisite: BIS 140 or competency
Corequisite: ALH 100 recommended

BIS 127 Applied Office Accounting 4(4-0)
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.
Prerequisite: BIS 120 Prerequisite for Medical Assistant only: MAT 104

BIS 136 Terminology and Proofreading 3(3-0)
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.
Prerequisites: BIS 164, ENG 111 may be taken concurrently

BIS 138 Basic Legal Terminology 3(3-0)
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 CDs. Topics covered include courts and legal systems; litigation, pretrial, trial, proceedings, verdicts, judgements, 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.
Prerequisites: BIS 140 or equivalent or concurrent enrollment, BIS 164 recommended or concurrent enrollment

BIS 140 Beginning Word Processing/Keyboarding 3(3-0)
This course is for the beginning typist. Topics include mastery of the touch system, development of personal-use skills, basic letter styles, term papers, tabulation, and centering using the most current word processing software. Speed ranges of 25-40 words a minute are needed to pass.

BIS 142 Intermediate Word Processing/Keyboarding 3(3-0)
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.
Prerequisite: BIS 140 or equivalent

BIS 164 Business Communications I 3(3-0)
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.
Prerequisite: Recommend concurrent enrollment in BIS 140 or BIS 100 or knowledge of correct keyboarding techniques.

BIS 200 Advanced Word Processing Applications 3(3-0)
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 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. Microsoft Office Specialist (MOS) approved software is used to provide students with skills needed to complete the MOS Expert Certification Exam.

Prerequisites: BIS 140 or equivalent, CIS 100 recommended

**BIS 230 Written Correspondence I 3(3-0)**

Using the computer, current word processing software, and a variety of reference materials, students develop skill and accuracy in transcribing from CDs 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.

Prerequisites: ENG 111, CIS 100, BIS 136, BIS 142, BIS 164

**BIS 234 Written Correspondence II 3(3-0)**

This course is an intense application of skills learned in business communications, English, keyboarding/word processing, and other BIS courses. The students transfer material into high-quality (mailable) keyboarded documents using computers, current word processing software, CDs, and a variety of reference materials. To provide a realistic experience, a word processing simulation is used.

Prerequisites: BIS 200, BIS 230, BIS 240

**BIS 236 Medical Transcription I 3(3-0)**

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 CDs.

Prerequisites: ALH 100, BIS 142, BIS 230

**BIS 238 Legal Transcription 3(3-0)**

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 CD recordings.

Prerequisites: BIS 138, BIS 200, BIS 230, BIS 240

**BIS 240 Advanced Word Processing/Keyboarding 3(3-0)**

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.

Prerequisites: ENG 111, BIS 136, BIS 142, BIS 200

**BIS 246 Medical Transcription II 3(3-0)**

This course is a continuation of BIS 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, CDs, 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.

Prerequisite: BIS 236

**BIS 250 Records Management 3(3-0)**

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.

Prerequisites: CIS 100 and BIS 140

**BIS 254 Office Procedures 3(3-0)**

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 BIS advisory committee members. Other forms of BIS program assessment may be required. The student continues with preparation of high-quality (mailable) documents from both dictated and rough draft materials.

**BIS 255 Medical Office Procedures 3(3-0)**

This is a course that introduces and teaches medical assisting administrative tasks; teaches records management, medical communications, and scheduling skills; and describes proce-
dures for preparing patients’ charts and bills. Medical practice management and finances are also addressed. Multi-day simulations provide real-world experience with physician dictation. 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 interviews.

Prerequisites: CIS 100, BIS 140

**BIS 256 Medical Transcription III 3(3-0)**

This course is a continuation of BIS 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, CDs, 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.

Prerequisite: BIS 246


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 BIS 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 BIS 260, the student should have completed the first three semesters of the program and must have approval of the BIS Co-op instructor and the MMCC Co-op Coordinator.

**BIS 264 Business Communications II 3(3-0)**

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.

Prerequisites: BIS 164 or ENG 111

**BIS 290 -299 Special Topics 3(3-0)**

These courses are designed to investigate various topics in Business Information Systems that are not included in current courses. Topics will be announced. These courses are offered based on demand.
includes planning budgets and stock control through sales analysis.

**Prerequisite:** Grade of C or better in ACC 201

**BUS 222 Labor and Management Relations 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 225 International Business 3(3-0)**

This course analyzes environmental changes as the firm expands globally. Emphasis is placed on the understanding and utilization of diversity and ethics in the development, operation and international expansion of the firm. Multi-cultural work environments, employment and labor issues, domestic and international law, global marketing, trade and finance will be examined.

**Prerequisites:** None

**BUS 231 Principles of Advertising 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 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.

**Prerequisite:** ACC.201 and MAT.105. It is recommended that students also have completed MAT 116, BUS 151, and either ECO 201 or 202.

**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 289 Business Practicum 1(1-0)**

This is a capstone course that will assess the graduating students’ ability to apply the acquired knowledge in order to solve a real-life business situation. Students will demonstrate the ability to research the market in order to identify profitable opportunities to introduce a specific product in the Mid-Michigan area. Students will articulate their findings in the form of a business plan, which will consist of the company's mission, organizational chart, marketing plan, and pro-forma financial statements.

**Prerequisites:** CIS 100, ACC 201, BUS 122, BUS 151, BUS 153, BUS 162, BUS 231, and either ECO 201 or ECO 202.

**BUS 291 Business Internship 3(1-0)**

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 293 – 299 Current Topics in Business 3(3-0)**

Courses designed to investigate various topics in Business not included in current courses. Topics will be announced.
CHM 105 Introductory Chemistry 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 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 by earning a C or better in CHM 105 (or an equivalent college chemistry course), earning a B or better in a High School chemistry course (within the last 3 years), or with permission from the instructor.

CHM 111 General College Chemistry I 4(3-2)
This description active until January 1, 2017.) Fundamental concepts, theories, laws and definitions as they apply to modern Chemistry. CHM 111 and CHM 112 are recommended to constitute the standard one-year course. Two hours per week of lab work are included.
Prerequisites: One year of high school chemistry or CHM 105 or equivalent; two years of high school algebra or MAT 105 (may be concurrent) or equivalent.

CHM 111 General College Chemistry I 5(4-3)
This description active as of January 1, 2017.) CHM 111 serves as the first semester course in a standard first year College Chemistry sequence. This course covers fundamental concepts in Chemistry including atomic structure, molecular structure, chemical reactions, fundamentals of thermodynamics, measurement and chemical calculations, gases, and solution chemistry. The lab component provides a hands on opportunity to investigate these concepts.
Prerequisites: CHM 105 with a minimum grade of C (or one year of High School Chemistry with a minimum grade of C)
Corequisite: MAT 105 or two years of High School Algebra

CHM 112 General College Chemistry II 4(3-2)
This description active until January 1, 2017.) 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 112 General College Chemistry II 5(4-3)
This description active as of January 1, 2017.) This course serves as the second semester in a standard first year Chemistry sequence. This course covers fundamental concepts in Chemistry including intermolecular forces, solutions, kinetics, equilibrium, acid/base chemistry, thermodynamics, and electrochemistry. The lab component provides a student a hands on opportunity to investigate these concepts.
Prerequisite: CHM 111 (minimum grade of C) and MAT 105

CHM 245 Organic Chemistry I - Lecture 4(4-0)
Organic Chemistry I is the first course in a two semester sequence of organic chemistry for students who are considering careers in some field of science, pre-professional health studies or engineering. It includes the study of the nomenclature, physical and spectral properties, structure, stereochemistry, spectroscopy, and reactions (with their mechanisms) of saturated and unsaturated hydrocarbons and alkyl halides. It is recommended that this course be taken concurrently with CHM 255 - Chemistry I Lab.
Prerequisite: CHM 112 (or CHM 111 with a minimum grade of B)

CHM 246 Organic Chemistry II - Lecture 4(4-0)
Organic Chemistry II is the second course in a two semester sequence of organic chemistry for students who are considering careers in some field of science, pre-professional health studies or engineering. It is a continuation of CHM 245 Organic Chemistry I. This course includes the study of the nomenclature, physical and spectral properties, structure, stereochemistry, and reactions (with their mechanisms) of conjugated dienes, benzene, alcohols, ethers, and carbonyl groups, featuring applications to biochemistry. Students will build on the core knowledge from CHM 245 to design more elaborate synthetic pathways and to create more complex mechanistic models for describing organic reaction pathways. It is recommended that this course be taken concurrently with CHM 256 Organic Chemistry II – Laboratory.
Prerequisite: CHM 245

CHM 255 Organic Chemistry I - Lab 1(1-0)
Organic Chemistry Laboratory I is the first is a two semester sequence of organic chemistry laboratory courses for students who are considering careers in some field of science, pre-professional health studies or engineering. It addresses the mastery of advanced laboratory techniques for the manipulation or organic compounds, including synthesis, separations and purifications. The characterization of organic materials by physical and spectroscopic methods is also addressed. Each week students will conduct an experiment in the lab that is meant to help them understand organic chemistry principles and also to gain experience in scientific research methods. This laboratory course is designed to accompany CHM 245.
Prerequisite: CHM 112 (or CHM 111 with a minimum grade of B)
CHM 256 Organic Chemistry II - Lab 1(1-0)
Organic Chemistry II - Laboratory is the second in a two-semester sequence of organic chemistry laboratory courses for students who are considering careers in some field of science, pre-professional health studies or engineering. It addresses the use of previously acquired advanced laboratory techniques for the manipulation of organic compounds, including synthesis, separations and purifications. The characterization of organic materials by physical and spectroscopic methods is also addressed. Each week students will conduct an experiment in the lab that is meant to help them understand organic chemistry principles and also to gain experience in scientific research methods. This laboratory course is designed to accompany CHM 246.
Prerequisite: CHM 255

CHM 290 - 299 Selected Topics 3 (3-0)
Courses designed to investigate various topics in Chemistry not included in current courses. Topics will be announced.

(CIS) COMPUTER INFORMATION SYSTEMS

CIS 100 Introduction to Information Systems 3(3-0)
This course is designed for students across the curriculum. CIS 100 will emphasize how the computer is used as a conceptual basis for problem solving and the role each hardware and software components play in the computer process. Students will do online research using the internet and electronic libraries. In addition, this course takes students to a higher level of learning in some of the most widely used application programs. Outside lab work is required.
Prerequisite: Touch keyboarding skills recommended

CIS 110 Computer Programming I (Visual Basic) 3(3-0)
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.
Prerequisite: MAT 104 or equivalent

CIS 111 Computer Programming II (Visual Basic) 3(3-0)
A continuation of CIS 110 in developing Object Oriented Languages concepts. The major project of the course is to develop a professional Windows application.
Prerequisite: CIS 110

CIS 121 Introduction to Java Programming 3(3-0)
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.
Prerequisite: MAT 104 or equivalent

CIS 130 Applications With Microcomputers 3(3-0)
A study of various computer applications as applied to business problems. Applications covered include spreadsheets, windows presentation programs, and databases.
Prerequisite: CIS 100 with a minimum grade of C

CIS 131 Advanced Java Programming 3(3-0)
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.
Prerequisite: CIS 150

CIS 132 Microsoft Excel 3(3-1.5)
This course covers advanced Excel concepts including Excel lists, working with multiple worksheets and workbooks, working with Excel's editing and web tools, developing an Excel application, data tables and scenario management, using Solver for complex problem solving, importing data into Excel, and using VBA (Visual Basic for Applications) to enhance Excel.

CIS 135 Introduction to Website Design 3(3-0)
This course introduces the fundamentals of web design and development. Students will explore web technology topics and learn how to use HTML, CSS, JavaScript, and related technologies to construct web pages. As the final course outcome, students will build their own online portfolio or a website that acts as an individual portfolio piece. ART 152 is also cross-listed as CIS 135. Credit may not be earned in both classes.

CIS 151 C# Programming I 3(3-0)
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-class work will consist of 1 ½ hours of lecture followed by 1 ½ hours of practical application. Required software is available on computers at the college; if students wish to complete assignments at home; they will need to procure the correct software.
Prerequisite: MAT 104 or equivalent

CIS 152 C# Programming II 3(3-0)
A continuation of the C# Programming 1 course, this course provides a review of topics from C# Programming 1 but focuses on the inheritance, exception handling, using GUI objects and the Visual Studio IDE, controls, event handling, and file and stream processing. In-class work will consist of 1 ½ hours of lecture followed by 1 ½ hours of practical application. Required software is available on computers at the college; if students wish to complete assignments at home; they will need to procure the correct software.
Prerequisite: MAT 104 and CIS 151
**CIS 155 Computer Operating Systems 3(3-1.5)**
A detailed study of the Windows 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 170 Networking Essentials 3(3-0)**
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.

**CIS 175 C++ Computer Programming I 3(3-0)**
This course covers algorithm design and development. An introduction to the design and development of computer programs using the C++ programming language is included.
Prerequisite: MAT 104 or equivalent

**CIS 176 C++ Computer Programming II 3(3-0)**
A continuation of CIS 175, with an emphasis on elementary data structures, string manipulation, recursion, stacks, queues, linked lists, binary trees, sorting, & searching.
Prerequisite: CIS 175

**CIS 190 Cisco Internetworking I 3(3-0)**
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.
Prerequisite: CIS 100, MAT 104

**CIS 195 Cisco Internetworking II 3(3-0)**
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.
Prerequisite CIS 190

**CIS 203 Web Security and Maintenance 3(3-0)**
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.
Prerequisite: CIS 100.

**CIS 205 e-Commerce: Concepts & Technology 3(3-0)**
This course introduces students to the basic principles of e-Commerce. The e-Commerce server software will be explored as well as crime and security problems. Students will learn which tools to use to protect networks, servers and clients. Digital payment and electronic billing models will be created. A working plan for internet marketing will be developed. Ethical, social, and political issues raised by e-commerce will be discussed.
Prerequisite: CIS 100

**CIS 221 Computers in Business I 3(3-0)**
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.
Prerequisite or Corequisite: ACC 201

**CIS 225 Database Systems 3 (1.5-1.5)**
This course covers relational database concepts and tools focused in an Oracle environment. Specifically, relational database concepts (rows, tables, and keys), table creation/modification (DDL and SQL), PL/SQL, forms, reports, and database administration tasks are presented. In-class work will consist of 1 1/2 hours of lecture followed by 1 1/2 hours of practical application. Required software is available on computers at the college; if students wish to complete assignments at home; they will need to procure the correct software.
Prerequisite: CIS 100, CIS 130

**CIS 230 Special Topics 3(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
**CIS 235 Website Design II 3(3-0)**
This course applies advanced web design and development techniques. Students will explore open source content management systems and use advanced HTML, CSS, JavaScript, and related web technologies to customize the functionality and appearance of dynamic websites. As the final course outcome, students will implement their own CMS with a responsive design and e-commerce features. ART 252 is also cross-listed as CIS 235. Credit may not be earned in both classes. Prerequisite: CIS 135 or ART 152.

**CIS 236 Emerging Web Technologies 3(3-0)**
This course is a continuation of ART 252 Website Design II. It introduces advanced, emerging technologies in web design/multimedia design and current emerging web technologies. This is a growing field and will give graphic design students opportunities to expand their background in current web technologies. The final course outcome is a functional, online portfolio. Prerequisite: CIS 235 or ART 252.

**CIS 246 Computer Setup & Repair-Software 3(3-0)**
This course provides students with the skills necessary to diagnose and correct problems that microcomputer users encounter. The course covers installing and upgrading operating systems and applications, memory optimization, and printer configuration. Prerequisite: CIS 100 Recommended.

**CIS 247 Computer Setup & Repair-Hardware 3(3-0)**
This course provides the student with practical, hands-on experience in installing, maintaining, and trouble-shooting microcomputer hardware. Topics include CPU, storage devices, add-on boards, video displays, printers, communication devices, and configuration. Prerequisite: CIS 100 Recommended.

**CIS 256 Microsoft Windows 2000 Professional 3(3-0)**
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. Prerequisite: CIS 270

**CIS 260 Systems Analysis 3(3-0)**
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 are discussed. Structured design techniques are emphasized. Prerequisite: CIS 100

**CIS 270 Networking Essentials 3(3-0)**
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. Prerequisite: CIS 110 or CIS 130

**CIS 271 Microsoft Windows Server 3(3-0)**
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. Prerequisite: CIS 270

**CIS 272 Active Directory Services 3(3-0)**
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. Prerequisite: CIS 256 or CIS 271

**CIS 273 Implementation Microsoft Windows Network 3(3-0)**
This course is for support professionals who are new to Microsoft Windows 2008 and will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows 2008 Server production. Prerequisite: CIS 271 and CIS 256

**CIS 274 Microsoft Internet Information Server 3(3-0)**
This course teaches students how to support the various features of Microsoft Internet Information Server 4.0 (IIS). Students will learn how to install, configure, and implement all components that comprise IIS. Students will also have hands-on experience setting up a Web site. Prerequisite: CIS 271

**CIS 280 CO-OP 3(1-15)**
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 3(3-0)
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.
Prerequisite: CIS 190, CIS 195

CIS 295 Cisco Internetworking IV 3(3-0)
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.
Prerequisite: CIS 190, CIS 195, CIS 290

(CJS) CRIMINAL JUSTICE SYSTEM

CJS 200 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.
Prerequisite: CJS 200

CJS 201 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: CJS 200

CJS 202 Juvenile Law and 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.
Prerequisite: CJS 200

CJS 203 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.
Prerequisite: CJS 200

CJS 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: CJS 201

CJS 205 Evidence and the Police Officer 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: CJS 201

CJS 206 Police Patrol Operations 3(3-0)
This course provides a study of police patrol and its function. The course includes both the theoretical and functional aspects of patrol function. Emphasis is placed on police patrol responsibilities, its purpose, methods and the different types of police patrol. The student will examine the concept of police patrol to include community policing, types of service calls, interview and reports, the courtroom and testimony, and insights to the technological advancements affecting the patrol officer.
Prerequisite: CJS 200

CJS 215 Police Academy 21(21-693)
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).

CJS 220 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.

**CJS 221 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.

**CJS 222 Correctional Facilities and 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.

**CJS 223 Client Growth/Development in Corrections 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.

**CJS 224 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.

**CJS 231 Local Detention Academy One 3(3-0)**

This course is designed to prepare Correctional Officers Training Students for employment at a local corrections (County Sheriff) facility. This course is one of three academic courses required to satisfy the Michigan Department of Corrections Local Detention Academy of 160 hours of total training. This course includes the following training academy modules and hours: Correctional Law (16 hours), Report Writing (8 hours), Interpersonal Communications (16 hours), Workplace Harassment (2 hours), Stress Management (4 hours), Cultural Diversity (4 hours).

**CJS 232 Local Detention Academy Two 3(3-0)**

This course is designed to prepare Correctional Officers Training Students for employment at a local corrections (County Sheriff) facility. This course is one of three academic courses required to satisfy the Michigan Department of Corrections Local Detention Academy of 160 hours of total training. This course includes the following training academy modules and hours: Booking and Intake (8 hours), Custody & Security (24 hours), Prisoner Behavior (8 hours), Suicide Awareness (8 hours), and Ethics in Corrections (2 hours).

**CJS 233 Local Detention Academy Three 4(3-0)**

This course is designed to prepare Correctional Officers Training Students for employment at a local corrections (County Sheriff) facility. This course is one of three academic courses required to satisfy the Michigan Department of Corrections Local Detention Academy of 160 hours of total training. This course includes the following training academy modules and hours: Defensive Tactics (40 hours), Fire Safety (12 hours), First Aid/CPR/AED (8 hours).

**CJS 250 Correction Officer Training Internship 5(1-0)**

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 student's needs and/or interests. Students must be recommended by one or more corrections instructors and successfully interview with a Corrections Department representative.

**CJS 290 - 299 Special Topics 3(3-0)**

Courses designed to investigate current topics in corrections not included in courses currently listed. Topics will be announced.

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**(DRF) DRAFTING**

**DRF 101 Technical Drawing 3(3-0)**

Basic through advanced technical sketching will be explored in order to master the skills of visualization, special perception, and basic blueprint reading. Freehand technical sketching, geometric constructions, orthographic (multi-view) projection, isometric drawings, auxiliary views, sectional views, and dimensioning will be covered as well as basic development of thread representation and manufacturing tolerances. Laboratory assignments include producing piece part technical drawings utilizing industry standards. Students will also be briefly introduced to a CAD program to experiment with computer-aided drafting at the end of the course.

Prerequisites: none

**DRF 105 Introduction to Geometric Dimensioning & Tolerancing 2(2-0)**

This course is designed to introduce the fundamentals of geometric dimensioning and tolerancing. Intermediate through advanced blueprint reading will be explored. Emphasis is placed on basic concepts of dimensioning and tolerancing a drawing with respect to the actual function or relationship of other part features.

Prerequisite: DRF 101; IND 101 Recommended

**DRF 120 Introduction to Auto CAD 3(3-0)**

This course is designed to acquaint students with computer aided-drafting using AutoCAD software. System interface, creating, modifying/editing and displaying geometry, dimension styles, block insertion, scale drawings, paper space/model space usage, creating templates, and file management will be
introduced to students as they create basic mechanical detail drawings and basic architectural drawings. An introduction to 3-D solid modeling will be explored at the end of the course.

**DRF 201 Mechanical Detail Drafting with CAD 3(3-0)**

This course will prepare the student to make working drawings of mechanical component parts and small assemblies using CAD while gaining more experience using the AutoCAD program. Emphasis will be placed on dimensioning, views, projection, and manufacturing tolerances. Additional skills will be developed in creating pictorials, depicting threads and fasteners, and creating blueprints for manufacturing. Intermediate through advanced 2-D AutoCAD commands and techniques will be developed throughout the course. Students are expected to do a complete minimum of 2 hours of individual outside of class laboratory hours work per week.

Prerequisites: DRF 101 and DRF 120

**DRF 210 Introduction to Solidworks 3(3-0)**

Students will have a thorough introduction to 3-D parametric solid modeling design using SolidWorks. Students will explore introductory through advanced SolidWorks commands and techniques including part model creation, assembly model creation, part drawing documents, and other modeling features and commands related to 3-D solid modeling. Students will model mechanical component parts to apply commands and principles.

**DRF 211 Advanced Solidworks Applications 3(3-0)**

Students will have a thorough introduction to advanced SolidWorks applications that include: sheet metal design, surface modeling, mold design, weldments, small structural design, and other topics. Students will model mechanical component parts and individual product designs to apply commands and principles.

Prerequisites: DRF.210

**DRF 220 Introduction to Soft Plan 3(3-0)**

Students will have a thorough introduction to 2D and 3D architectural design using Soft Plan. This class is available for students to design residential and light commercial buildings. Students will acquire the ability to design floor plans, floor systems and ceiling plans, roof plans, elevation drawings, cross section drawings, site plans, and framing diagrams.

**DRF 250 Co-Op 3(1-15)**

This course will cover job readiness objectives that are required to become successful in a professional work environment: co-op is a capstone course planned for the last semester of the Associate in Applied Science Degree: Computer Aided Drafting & Design. 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 request. Documentation by the employer will be required.

Prerequisite: Take DRF 101, DRF 105, DRF 120, DRF 201, DRF 210, and DRF 211 with a minimum grade B or a score of 83% or better on a competency exam. Also take IND 101 and IND 113.

**DRF 280 CAD Program & Software Certification 3(3-0)**

This course will cover the necessary skills and techniques that are included on nationally recognized CAD software certification exams. This course is designed as a CAD program capstone course to help students prepare for program assessment exam(s) as well as CAD software certification exam(s). This course will allow student to revisit the fundamental objectives in computer aided drafting & design technology such as geometric constructions, object properties & organizational, orthographic & multi-view drawings, dimensioning and notes, auxiliary views, section views, and assembly drawings & block review. Student will also be reintroduced to solid modeling topics that include part modeling, advanced part modeling, assembly modeling, and advanced modeling theory and analysis.

Prerequisite: DRF 101, DRF 105, DRF 120, DRF 201, DRF 210 and DRF 211 all with a minimum grade of B or successful completion of a competency exam (83% or better).

**DRF 295 - 299 Special Topics 3(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) **EARLY CHILDHOOD EDUCATION**

**ECE 101 Introduction to Early Childhood Education 4(4-0)**

This course is designed to assist the student to understand the role and personal characteristics of the child care provider or teacher, to become familiar with early childhood settings, developmental milestones and development theories. The course consists of lecture and some hands-on activities to guide children’s learning. This course introduces the student to the Child Development Association (CDA) national credential.

**ECE 112 Infancy 4(5-0)**

This course explores prenatal development, modern childbirth practices, and their effect on the family, normal human development of infants from birth through 2.5 years, and the practical issues confronting professionals who work with children of this age group and their families. Students will choose licensed lab sites where infants and toddlers are in attendance. Thirty lab hours are required. This class satisfies Department of Human Services (DHS) requirements for infant/toddler lead teachers.

Corequisite: ECE 101
ECE 113 Early Childhood 4(5-0)
This course explores the principles of growth and development of children ages 3-8 years, as well as strategies for teaching this age group, observation techniques, working with the child in the context of their family and addressing family diversity. 30 lab hours are required in a licensed Department of Human Services (DHS) program or school setting with children ages 3-8 years in attendance.
Prerequisite: ECE 101 and ECE 112 or permission of Coordinator.

ECE 114 Interacting With Children, Parent/Adult 4(5-0)
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. The student will observe child-adult interactions in natural settings. 30 hours of lab time are required in observing young children in the community. Diversity and parenting styles will be studied.
Prerequisites: ECE 101 and ECE 112

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 three years prior to sending an application for assessment.) Have accumulated 120 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.

ECE 201 Guidance and Implementation of Programs 3(4-0)
This course is designed to provide students with a variety of opportunities to learn developmentally appropriate methods and theories of guidance, both direct and indirect, in working with young children. In addition, the course will examine all aspects of the early childhood setting, including physical arrangement, curriculum development, positive atmosphere, and age and interest groupings. Evaluation techniques to assess child and program progress will be examined. 30 lab hours in a Department of Human Services (DHS) licensed setting are required. ENG 111 is highly recommended prior to enrolling in this course.
Prerequisites: ECE 113 and ECE 114

ECE 202 Creative Development of the Child 3(4-0)
This course will focus on curriculum development in an early childhood setting. Students will learn how children become creative thinkers, and how to encourage creativity in young children in multiple content areas. Activities will be developed for implementation in a lab setting. 30-hour lab placement is required. ENG 111 is highly recommended prior to enrolling in this course.
Prerequisites: ECE 113 and ECE 114

ECE 206 Parent, School, & Community 3(4-0)
This course will explore in-depth the important relationship between the early childhood program and the families it serves. The student will focus on family-centered care and transformative education, observing communication strategies at early childhood events, and exploring service agency resources for families. 30 lab hours (in the form of field assignments) are required. ENG 111 is highly recommended prior to enrolling in this course.
Prerequisites: ECE 113 and ECE 114.

ECE 207 Early Childhood Education Practicum 4(7-0)
This course takes the student into selected early childhood settings where they will prepare activities and give care to children using theories and techniques learned and observed in prerequisite courses. It includes time with peers and instructor to evaluate and discuss the field experience.
Prerequisites: ECE 201, ECE 202, ECE 206 and ENG 111

ECE 208 Early Childhood Administration 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, budgeting, food service, collaboration, public relations, marketing and fund raising. This course satisfies licensing requirements for Program Directors under the Department of Human Services (DHS).
Prerequisites: ECE 201, ECE 202, ECE 206, and ENG 111 or permission of ECE Coordinator.

(ECO) ECONOMICS

ECO 110 Economics and Society 3(3-0)
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 201 Principles of Economics (macroeconomics) 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) 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 3(3-0)**

These courses are designed to investigate various topics in Economics that are not included in current courses. Topics will be announced.

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**EDU 107 Introduction to Teaching 3(3-0)**

Introduction to teaching as a career. Survey of student behavior and effective teacher responsibilities preparatory to guided observation and participation in K-12 settings.

**EDU 290 Technology in Education 3(3-0)**

Students will learn to operate various technology-based equipment; select and assess instructional media materials, courseware, and software; and integrate technology and media into K-12 instruction.

Prerequisite: Students should have basic computer and keyboarding skills. Students must have taken EDU 107.

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**ENG 097 College Reading I 2(2-0)**

ENG 097 is designed to develop the strategies, skills, and attitudes necessary for reading college-level texts. Based on reading placement score, completion of the English self-placement quiz, and discussion with an academic advisor, students may enroll in ENG 097 in conjunction with ENG 110 Introduction to Academic Writing, or another course with college-level reading. Students will learn and practice a variety of reading strategies they can use to better understand what they read. In addition to strategic reading, emphasis will be on integrating critical thinking with reading, reading comprehension, reading flexibility, and expanding vocabulary. With an instructor facilitating, students will develop existing reading skills in an interactive, collaborative setting.

Prerequisites: None

Corequisite: ENG 110, ENG 111, or a class with college level reading.

**ENG 098A College Reading II 1(1-0)**

ENG 098A is designed to develop the strategies, skills, and attitudes necessary for reading college-level texts. Based on reading placement score, completion of the English self-placement quiz, and discussion with an academic advisor, students may enroll in ENG 098 in conjunction with ENG 110 Introduction to Academic Writing, or another course with college-level reading. Students will learn and practice a variety of reading strategies they can use to better understand what they read. In addition to strategic reading, emphasis will be on integrating critical thinking with reading, reading comprehension, reading flexibility, and expanding vocabulary. With an instructor facilitating, students will develop existing reading skills in an interactive, collaborative setting.

Prerequisites: None

Corequisite: ENG 110, ENG 111, or a class with college level reading.

**ENG 098B College Reading II 1(1-0)**

ENG 098B is designed to develop the strategies, skills, and attitudes necessary for reading college-level texts. Based on reading placement score, completion of the English self-placement quiz, and discussion with an academic advisor, students may enroll in ENG 098 in conjunction with ENG 110 Introduction to Academic Writing, or another course with college-level reading. Students will learn and practice a variety of reading strategies they can use to better understand what they read. In addition to strategic reading, emphasis will be on integrating critical thinking with reading, reading comprehension, reading flexibility, and expanding vocabulary. With an instructor facilitating, students will develop existing reading skills in an interactive, collaborative setting.

Prerequisites: None

Corequisite: ENG 110, ENG 111, or a class with college level reading.
ENG 098C College Reading II 1(1-0)
ENG 098C is designed to develop the strategies, skills, and attitudes necessary for reading college-level texts. Based on reading placement score, completion of the English self-placement quiz, and discussion with an academic advisor, students may enroll in ENG 098 in conjunction with ENG 110 Introduction to Academic Writing, ENG 111 Freshman Composition, or another course with college-level reading. Students will learn and practice a variety of reading strategies they can use to better understand why they read. In addition to strategic reading, emphasis will be on integrating critical thinking with reading, reading comprehension, reading flexibility, and expanding vocabulary. With an instructor facilitating, students will develop existing reading skills in an interactive, collaborative setting.
Prerequisites: None
Corequisite: ENG 110, ENG 111, or a class with college level reading.

ENG 104 Reading and Writing for College 4(4-0)
ENG 104 is a four credit course that combines instruction in reading and writing and is designed for students who have had little to no preparation for reading and writing at the college level. The kinds of strategies and skills students will practice in ENG 104 should prepare them for the kinds of reading and writing they will do at the college level. Note: Students who assess at a low reading level must begin the composition sequence with ENG 104.
Prerequisite: None

ENG 110 Academic Writing 3(3-0)
This course is meant to serve as a companion course to ENG 111, and will utilize the same goals and outcomes. However, ENG 110 is designed to provide incoming students a more gradual and more thorough introduction to the textual practices required in college (such as evidence, critical analysis, considering rival points of view, or synthesizing a new position). 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.
Prerequisite: ENG.104 with a minimum grade of C, or placement into ENG 110.

ENG 111 Freshman English Composition 3(3-0)
This course prepares a student for academic writing in the college setting, and concentrates on analyzing and discussing written sources. Emphasis is on writing that shows insight into published discussions of an issue and understanding of the contexts of academic debate (rather than on informational reports or personal expression essays). In addition, research and revision are treated as integral parts of the process of writing an academically acceptable essay. By the end of the course, a student must show 'competency' in an academic portfolio of selected essays.
Prerequisite: ENG.110 with a minimum grade of C; or placement into ENG 111.

ENG 111B Portfolio Tutorial 0(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 3(3-0)
This course introduces students to a variety of literature and enhances students' competency in critical reading and writing. The course will include introductions to genres of literature and critical theories of reading and responding to literature. Students should have completed ENG 111 and have basic writing skills.
Prerequisite: ENG 111 with a minimum grade of C

ENG 201 English Literature I 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 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 the 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 3(3-0)
Readings in the novel, short story, essay, autobiography, biography, poetry, and drama of the 20th and 21st centuries. From semester to semester, this course will focus on one of the following genres: Science Fiction, Postcolonial, Postmod-
ern, Queer, African American, Women's, Native American, or Graphic Fiction Literature.

Prerequisite: ENG 111 and either SPE 101 or 257

ENG 222 Expository Writing & Research 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: ENG 111 with a minimum grade of C

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.

Prerequisite: ENG 111

ENG 289 Film, Filmmaking, and Culture 3(3-0)

In this course, film will be approached as an important sociological and cultural artifact and as both primary and secondary sources of historical information and insight. This course will also introduce the student to the techniques of this unique art form. The goal is to learn how to watch film from an analytical perspective. Students will need to pay additional fees for Netflix and iTunes rentals/subscriptions, at an approximate cost of $75.

Prerequisite: ENG 111

ENG 90 - 299 Selected Topics 3(3-0)

These courses are designed to investigate various topics in English that are not included in current courses. Topics will be announced.

(ENT) ENTREPRENEURSHIP

ENT 221 Marketing Strategies for Entrepreneurs 3(3-0)

This course provides methods of identification of a product and/or service potential, advertising plans, marketing strategies, store location, purchasing procedures and inventory control.

ENV 290 Environmental Internship 1(1-0)

This course is the capstone field experience for students in the environmental science or environmental technology curricula. 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 3(3-0)

These courses are designed to investigate various topics in Environmental Science that are not included in current courses. Topics will be announced.

(ESL) ENGLISH AS A SECOND LANGUAGE

ESL 101 English for Non-Native Speaker 4(4-0)

ESL 101 is a course for speakers of English as a Second Language (ESL) on using English for a variety of academic and social situations to prepare them for success as international students. It is a classroom course (i.e. traditional face-to-face) that meets for 4 contact-hours every week, with some students also required to attend weekly tutoring sessions in the Writing Center. It is intended to be flexible and student-centered in order to meet diverse language needs.

Prerequisite: This course is designed for students with lower language proficiency (equivalent to a TOEFL CBT score below 187). All students enrolled in ESL 101 must be non-native speakers of English. The instructor has discretion in determining who is a non-native speaker of English and is eligible for this course.

ESL 103 Academic English for Non-Native Speakers 4(4-0)

ESL 103 is a course for speakers of English as a Second Language (ESL) on reading and writing academic English intended to prepare them for the language tasks of an American postsecondary classroom. It is a classroom course (i.e. traditional face-to-face) that meets for 4 contact-hours every week.

Prerequisites: Students enrolled in ESL 103 are required to have taken and passed ESL 101 with a C or better. Students able to demonstrate a high language proficiency may be allowed to waive this prerequisite based on the instructor's evaluation (equivalent to a TOEFL CBT score less than 213 but above 187).

ESL 290 - 299 Special Topics 3(3-0)

These courses are designed to investigate various topics in English as a Second Language that are not included in current courses. Topics will be announced.
**FRN FRENCH**

**FRN 101 Elementary French I 4(4-0)**
This is an elementary course designed for students who have had little or no previous experience in French. It is designed to help students acquire foundational language skills necessary for basic communication in French. The majority of class time will focus on verbal communication, however, reading and writing will be frequently integrated, and selected cultural information will be studied.

**FRN 102 Elementary French II 4(4-0)**
French 102 is a continuation of French 101 and will begin with a brief review of the material covered in FRN 101. Students in French 102 will continue the study of grammar and vocabulary and will use these to communicate utilizing speaking, writing, listening, and reading skills. This course is designed to provide the basis for further study of French at the intermediate level.
Prerequisite: FRN 101 or equivalent.

**GEL GEOLOGY**

**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.

**GEL 290 Special Topics 3 (3-0)**
These courses are designed to investigate various topics in Geology that are not included in current courses. Topics will be announced.

**GER GERMAN**

**GER 101 Elementary German I 4(4-0)**
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.

**GER 102 Elementary German II 4(4-0)**
GER 102 is a continuation of GER 101 and will begin with a brief review of the material covered in GER 101. Students in GER 102 will continue the study of grammar and vocabulary and will use these to communicate utilizing speaking, writing, listening, and reading skills. This course is designed to provide the basis for further study of German at the intermediate level.
Prerequisite: GER 101 or equivalent.

**HED HEALTH EDUCATION**

**HED 101 Introduction to the Health Professions 3(3-0)**
This course provides students an opportunity to understand and navigate the college/university environment, value of learning, and student responsibilities within the healthcare professions. A survey of health professions, healthcare culture, interprofessional education, ethical and legal issues, employment opportunities, and market demands.

**HED 106 Healthy Lifestyles 3(2-2)**
This course focuses on individual health and wellness concepts using quantitative reasoning and is designed to assist the individual in striving for lifelong learning about healthier lifestyles.

**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 205 CPR and First Aid 2(1-2)**
This course includes CPR and first aid care. American Red Cross certification for first aid and CPR can be earned.

**HED 285 Community Health 3(3-0)**
This course has been designed to offer the student a comprehensive introduction to community health. Through awareness of the many health issues associated with any given community, the student will be able to critically assess the extent of and examine possible solutions.

**HED 290 Special Topics 1(1-0)**
These courses are designed to investigate various topics in Health Education that are not included in current courses. Topics will be announced

**(HES) HUMAN ENVIRONMENTAL STUDIES**

**HES 100 Human Lifespan Development 3(3-0)**
This course introduces students to the study of the principles of human development from conception to death. The course provides a focus on childhood foundations in our later development, as well as familial and societal influences on our development across the lifespan. This course is designed for students interested in early childhood development and family studies related majors and careers. Students who have taken PSY 212 or an equivalent will not also receive credit for HES 100.

**HIS 101 Issues in Western Civilization I 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 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. Principle 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 3(3-0)**
This course examines the developments from exploration of the Americas through Reconstruction. Primary topics of study are exploration of colonization and its characteristics, the American Revolution, the Constitution, democratic developments, rise of States Rights, the Civil War, and Reconstruction.

**HIS 212 History of the United States II 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: Foundations of 20th 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 3(3-0)**
Continuation of HIS 251. Students desiring humanities credit should register for HUM 252.

**HIS 290 - 299 Selected Topics 3(3-0)**
Courses designed to investigate various topics in History not included in current courses. Topics will be announced.

**(HRA) HEATING/REFRIGERATION/AIR CONDITIONING**

**HRA 102 Refrigeration Fundamentals 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 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 at-
tention 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 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 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(3-2)**

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.

**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 Systems 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 198 EPA Refrigerant Handler Certification 1(1-0)**

This is a 4-day course specifically designed to teach students the required knowledge necessary to pass the Environmental Protection Agency’s Refrigeration Handler Certification Exam. The specific content areas are; Core. The basic law regarding CFC, HCFC, HFC and other chlorinated refrigerants, containment, disposal, and other certification requirements. Type 1: This level of certification deals with factory charged refrigeration systems containing less than 5 pounds of refrigerant. Type 2: This level of certification deals with all other high pressure refrigerant systems with 5 pound of refrigerant of more or are custom manufactured. Type 3: This level of certification deals with low pressure chiller applications. Universal Certification is granted to those who pass all certification levels; the student must pass the Core section to be awarded any certification. The Refrigerant Handler Certification textbook and exam are included. The instructor for this course is an EPA Certified Refrigerant Handler Certification Exam instructor.

**HRA 199 Special Topics 1(1-0)**

A two-day intensive course specifically designed to teach students the required knowledge necessary to pass the Environmental Protection Agency’s Refrigeration Handler Certification Exam. The specific content areas are; Core - the basic law regarding CFC and other chlorinated refrigerants, refrigerant containment, disposal and other certification 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 and 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 electric-driven systems.
HRA 220 Commercial Refrigeration Design 2(1-2)
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 HVA Load Determination 3(2-2)
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.
Corequisite: HRA 108.

HRA 225 Residential HVAC Distribution 3(2-2)
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 251 Geothermal Basics 3(2-2)
This is the first course in the Geothermal Program. It covers an in depth look at the basics of geothermal technologies including; system components, controls, troubleshooting, control schematics, system application and domestic hot water production.
Prerequisite: HRA.240 or MMCC Heating and Refrigeration Training Credentials or an Associate’s Degree in Heating/Refrigeration from an accredited college/university, or lead faculty approval.

HRA 254 Air Source Heat Pumps 3(2-2)
This course concerns itself with the basic understanding of original air source heat pump technology in compliance with Air Conditioning Contractors of America (ACCA). Students will be introduced to system location requirements, components, flow requirements, and the installation and troubleshooting of air source heat pump systems using both theory and hands-on practical instruction.
Prerequisite: HRA.251

HRA 261 Geothermal System Design 3(2-2)
This course deals with structure BTU calculation, equipment capacity and air flow requirements to maintain the comfort conditions of the home. Methods used will follow the ACCA J and D Manuals and the Right Suite computer load calculation software. At the completion of this course the student will take the Air Distribution exam of the Industry Competency Exam (ICE).
Prerequisite: HRA.251

HRA 262 Geothermal Loop Systems 3(2-2)
This course is preparatory for HRA 263 International Ground Source Heat Pump Association (IGSHPA) Installer Certification workshop. This course will take a detailed look into the various types of underground loops used in geothermal heat transfer specifically; open loop, horizontal loops, slinky loops, pond loops, vertical well loops, and direct exchange loops. As well, the various types of fluids such as water, glycol, brine solutions, refrigerants and emerging technologies used for the exchange of heat in an underground loop will be examined. Application methods used in this course will follow existing data from American Society of Heating Refrigeration Air Conditioning Engineers (ASHRAE).
Prerequisite: HRA 251

HRA 263 Closed Loop Ground Source Pump Install 3(2-2)
This course deals with all pertinent topics related to International Ground Source Heat Pump Association (IGSHPA) Closed-Loop Geothermal Installation Certification and IGSHPAs High Density Poly-Ethylene (HDPE) Fusion Welding Exam administered by North American Technician Excellence (NATE) Students who successfully pass the examinations will be certified by those accrediting agencies (IGSHPA, NATE).
Prerequisite: HRA 251, or Associate Degree in Applied Science Heating Refrigeration Air Conditioning, or lead faculty approved significant, verifiable field experience in Heating Refrigeration Air Conditioning, or current recent field involvement in geothermal field processes including well drilling, architectural design or HVACR design for geothermal systems.

HRA 265 Geothermal Research and Development 4(2-4)
This course will put geothermal students on the cutting edge of HVAC technology as it relates to geothermal heating and cooling. Students will investigate areas of the complete geothermal system and evaluate possible system changes or potential areas of development. Using experimentation, prospective changes will be designed, constructed, installed and the system will be operated, monitored and evaluated. Potential system design changes will be enhanced and tested in actual field conditions in order to make industry-wide technical improvements. Pre requisite: HRA.251, minimum grade of C
HRA 282 Insulating Systems 2(1-2)
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 Heating, Refrigeration & Air Conditioning 3(2-2)
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 3(1-15)
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: Minimum of 12 credits in HRA

HRA 295 - 299 Special Topics 3(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.

(HUM) HUMANITIES

HUM 101 World of Creativity I 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 3(3-0)
Continuation of HUM 101, HUM 102 begins with the baroque period and ends with the current time.

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 and Culture 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 (ENG 111 and either SPE 101 or SPE 257)

HUM 205 The History of Rock and Roll: From Its Origins to 1980 3(3-0)
Develops an interest and respect for the origins and growth of Rock and Roll music in the United States and Europe through the focus on recordings and videos that documented its progress.

HUM 210 The History of Jazz 3(3-0)
Course is designed to assist students in developing an interest in and respect for Jazz as an original American art form. Students will trace Jazz history from its theoretical origins to the present time. The focus on the class is on the evolution of the music and the artists who brought about Jazz.

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 225 Study Abroad 2(2-0)
An interdisciplinary study abroad course, offering students a unique insight into what is offered via traditional classroom experience. This class will study different aspects of a specific society. Students will interact directly with the idiosyncrasies of a specific culture and understand aspects such as: language, history, food, currency, religion, architecture, and ideas. The course will consist of combinations of lectures, tours, field research, cultural events, interviews, meetings with local experts, and a journal. Prerequisites: Instructors Approval Needed

HUM 251 American Studies I 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 3(3-0)**
Continuation of HUM 251. Students desiring social science credit should register for HIS 252.

**HUM 253 American Culture 3(3-0)**
This course is designed to introduce from a variety of programs to a humanities approach into American Culture. This exploration will focus on the way the humanities and their concern with art, ethics, history, philosophy, and culture analyze the cultural production and reproduction of values in the United States. This course will stress interaction through writing, collaborative assignments, presentations, and discussions to emphasize the humanities' commitment to self-discovery, expression, and reflection.

Prerequisites: ENG 111 and either SPE 101 or SPE 257

**HUM 294 Field Experience in Fine Arts 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 3(3-0)**
Courses designed to investigate various topics in Humanities not included in current courses. Topics will be announced.

**INDUSTRIAL TECHNOLOGY**

**IND 101 Basic Machine Shop Practices 4(4-0)**
This is a one semester program designed to prepare students for a variety of jobs in the Machine tool industry. The students will be trained in processes including sawing, mill operations, and lathe operations. Extensive safety training in each of these processes will be covered as well. Students will also learn a wide variety of measuring techniques most often found in the Machine Tool Industry.

**IND 102 Machine Tool Practices II 4(4-0)**
This is a one semester program designed to prepare students for a variety of jobs in the Machine tool industry. The students will be trained in processes including sawing, mill operations, and lathe operations. Extensive safety training in each of these processes will be covered as well. Students will also learn a wide variety of measuring techniques most often found in the Machine Tool Industry. This program is an extension of IND 101. This program takes basic machining and measuring techniques and takes them to another level. The expectations along with the project work will greatly increase in this course.

Prerequisites: IND 101, grade of C or better in MAT 104 or equivalent

**IND 113 CNC Machining 4(4-0)**
The student will be introduced to CNC programming codes developed from using basic blueprint reading skills to convert basic blueprint measurements into basic CNC programming language. This course will familiarize the student in learning G and M codes, translating basic print drawings into CNC programming codes, become familiar with general CNC principles and its functions and introducing them to CNC machines and basic CNC programming skills. Student will also be introduced to MasterCam CNC graphic software. This course is a pre-requisite to IND 116 Intermediate CNC Programming.

**IND 116 CNC Programming 4(4-0)**
The student will be introduced to CNC programming codes developed from using basic blueprint reading skills to convert basic blueprint measurements into basic CNC programming language. This course will familiarize the student in learning G and M codes, translating basic print drawings into CNC programming codes, become familiar with general CNC principles and its functions and introducing them to CNC machines and basic CNC programming skills. Student will also be introduced to MasterCam CNC graphic software. This course is a pre-requisite to IND 116 Intermediate CNC Programming.

Prerequisite/Co-Requisite: IND.101 (can be taken prior to IND.113 or concurrent with IND.113).

**IND 121 Manufacturing Processes 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.

Prerequisites: IND 101, IND 113, grade of C or better in MAT 105 or MAT 170 or equivalent

**IND 140 Metallurgy and Industrial Materials 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.
**JOR) 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.

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**JPN) JAPANESE**

**JPN 101 Elementary Japanese I 4(4-0)**
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.

**JPN 102 Elementary Japanese II 4(4-0)**
Students in Japanese 102 will continue to learn the basic language skills covered in 101 with increased emphasis on vocabulary, informal language and quick, natural-sounding speech.
Prerequisites: JPN 101 or previous study of Japanese with instructor approval

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**MAT) MATHEMATICS**

**MAT 060 Math Study Skills 1.5(1.5-0)**
This course will emphasize study skills important for success in mathematics courses. Topics to be covered include note taking, homework issues, how to study math, test taking, how to use the textbook, and anxiety. It is strongly recommended that students take another MAT course concurrently with MAT 060. Credit/no credit only.
Prerequisites: None

**MAT 101 Basic Mathematics 3(3-0)**
An introductory mathematics course with a focus on applications of arithmetic, including percents (increase/decrease, compound interest, investments, inflation/deflation), proportions (unit prices, revenue/cost/profit, medicine doses, comparisons, unit conversions), and geometry (perimeter/circumference, area, surface area, volume).

**MAT 102 Algebraic Concepts 3(3-0)**
Algebraic Concepts is a three credit class designed for the student with little or no previous algebraic background. It will acquaint the student with basic algebraic concepts as well as prepare them to take MAT 104. Also it gives the student the foundation to be successful in the mathematics required in other Mid Michigan Community College programs.
Prerequisites: None

**MAT 104 Basic Algebra 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 MAT 102 OR equivalent. Please Note: MAT 104 is also offered as a two-semester sequence and a three-semester sequence, see next.

**MAT 105 Intermediate Algebra 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 as a two-semester sequence, see next.

**MAT 107 College Algebra 3(3-0)**
Students in College Algebra will study real and complex numbers, linear functions, quadratic functions, zeros of functions, interpreting graphs, linear and quadratic inequalities, polynomial and rational functions, exponential and logarithmic functions, the algebra of functions, and conic sections.
Prerequisite: Successful completion of MAT 105 or equivalent.

**MAT 114 Mathematical Reasoning 3(3-0)**
Provides a course for students majoring in fields that do not have a specific mathematics requirement. Emphasizes practical applications of mathematics, problem solving, and the communication of mathematics. Topics include Financial Mathematics, Growth Models, Probability and Statistics, and Voting and Apportionment. Topics determined by the instructor will also be in the course. These topics may include graph theory, game theory, set theory, logic, linear algebra, economics, or other approved topics.
Prerequisite: MAT.104 with a C or better or placement into MAT 105.

**MAT 118 Mathematics for Elementary Teachers I 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 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 MAT.107 or equivalent

**MAT 126 Calculus I 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 3(3-0)**
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 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 equivalent

**MAT 217 Business Calculus 4(4-0)**
Fundamental calculus operations applied to business and financial situations. Topics will include limits, derivatives and their applications, curve sketching and optimization, exponential and logarithmic functions, integration and applications, an introduction to functions of several variables, and the mathematics of finance. Students are required to have a graphing calculator. The Texas Instruments TI-83+ calculator is strongly recommended.
Prerequisites: MAT 116 or MAT 107 with a grade of C or better

**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: Grade of C or better in MAT 118

**MAT 225 Calculus II 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 equivalent

**MAT 226 Calculus III 4(4-0)**
Topics covered include: functions of n-variables, partial differentiation, multiple integration, solid analytic geometry, 3-space vectors, and Greens Theorem.
Prerequisite: Grade of C or better in MAT 225 or equivalent

**MAT 230 Introduction to Linear Algebra 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 equivalent

**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 275 Music Appreciation 3(3-0)**
This course will promote general musical understanding through active listening.

**NUR 121 Fundamentals of Nursing 5(5-0)**
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 in communication techniques, nursing process, nutrition, wellness, adaptation, scientific principles and skills of basic nursing practice as applied to common physical and psychosocial manifestations of health and illness. In addition, the legal and ethical aspects of nursing are discussed.
Prerequisite: Admission to NUR Program Corequisite: NUR 124, NUR 150, NUR 151

**NUR 124 Nursing Clinical I 4(0-12)**
This is the basic clinical course in the nursing curriculum which provides the beginning nursing students with the foundation upon which other courses build and expand. This clinical course
This clinical course focuses on the care of groups of patients and includes practice and demonstration of competency of basic nursing skills in the Clinical Simulation Center (CSC) at the college.

Prerequisite: Admission to Nursing Program
Corequisite: NUR 121, NUR 150, NUR 151

**NUR 125 Nursing Care of Adults I 4(4-0)**

This course focuses on care of the adult medical-surgical client 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 for the client and support person(s).

Prerequisites: NUR 121, NUR 124, NUR 150, NUR 151
Corequisite: NUR 128, NUR 152

**NUR 127 Maternal-Child Nursing 4(3-2)**

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 stressors. The course uses observational experiences, self-study and in-lab clinical simulations. 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 Nursing 124 to include growth and development, nutrition, drug therapy and variations from normal. Selected adaptive problems are utilized to emphasize the role of the nurse in direct care provision, communication and management of care through the use of the nursing process.

Prerequisites: NUR 121, NUR 124, NUR 150
Corequisite: NUR 125, NUR 128

**NUR 128 Nursing Care of Adults Clinical II 4(0-12)**

A clinical course which consists of guided learning experiences in selected acute care health facilities. Emphasis is placed on use of nursing skills, client plan of care and communication techniques with medical surgical clients and support person(s) throughout the life span. Focus is on expansion of knowledge and skills acquired in NUR 124 to include growth and development, nutrition, drug therapy and variations from normal. Also includes practice and demonstration of competency of nursing skills in the Clinical Simulation Center (CSC) at the college.

Prerequisites: NUR 121, NUR 124, NUR 150, and NUR 151
Corequisite: NUR 125 and NUR 152

**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 VI 1(3-0)**

This clinical course focuses on the information and skills previously learned in NUR 121, 124 and NUR 150. It consists of a guided learning clinical experience in a selected long-term health care facility. Emphasis is placed on application of principles and techniques of basic nursing theory common to the institutionalized client. This clinical practicum is specifically targeted for the nursing student returning to the Nursing program. Students must successfully complete this clinical practicum to return to the Nursing program. This course also includes the practice and demonstration of competency of selected nursing skills in the Clinical Simulation Center (CSC) at the college.

Corequisite: NUR 150

**NUR 133 Transition for Advanced Standing 3(2.5-1)**

This course is designed to assist in the role transition from practicing LPN to ADN student. This course is specifically targeted for the non-MMCC LPN and MMCC LPN who graduated more than 2 years prior to readmission. It expands on the concepts of communication techniques, nursing process, assessment, nutrition, safety, evidence-based practice, and skills competency. Students must successfully complete this course to enter the Nursing program.

**NUR 150 Pharmacology in Nursing 2.5(2.5-0)**

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 effect, assessment, administrations, and responsibilities for the safe and accurate administration of medications.

Prerequisite: Admission to Nursing Program.
Corequisite: NUR 121, NUR 124, NUR 151

**NUR 151 Assessment in Nursing 0.5(0.5-1)**

This course is designed as a hands-on lab to introduce the nursing student to the knowledge and skills required to perform a systematic physical assessment of a healthy adult and to record the findings appropriately. The course emphasizes a holistic approach to assessment while encompassing the growth and development of neonates through geriatrics.

Prerequisite: Admission to the Nursing Program.
Corequisite: NUR 121, NUR 124, NUR 150
NUR 152 Nutrition Across the Lifespan 1(1-0)
This course is designed to introduce the nursing student to the fundamentals of nutrition across the lifespan. This course will define the role of nutrients in the human body, as well as family nutrition. Emphasis will be placed on essential nutrients and their primary functions; the processes of digestion, absorption and metabolism; and disease conditions associated with imbalanced nutrition. The student will develop an understanding for therapeutic application of dietary principles and the nurse's role and responsibility in this facet of client care.
Prerequisite: NUR 121, NUR 124, NUR 150, NUR 151
Corequisite: NUR 125 and NUR 128

NUR 221 Family Centered Nursing 4(4-0)
This course is a study of family centered nursing in which planning care for clients in relation to concepts of family and child development from conception through adolescence in normal and common disease states is studied. Focuses on the use of principles of bio-psycho-social, spiritual, & developmental needs theories in planning care for well and ill maternity and pediatric clients.
Prerequisite: NUR 121, NUR 124, NUR 125, NUR 128, NUR 150, NUR 151, and NUR 152.
Corequisite: NUR 222

NUR 222 Family Centered Nursing Clinical III 2(0-6)
This clinical course focuses on the use of the nursing process in planning and implementing care for clients in relation to concepts of family and child development from conception through adolescence. Selected acute care health facilities are utilized for this course.
Prerequisite: Fall Cohort: NUR 125, NUR 128, NUR 152; Winter Cohort: NUR 225, NUR 226, NUR 227.
Corequisite: NUR 221

NUR 223 Mental Health Nursing 2(2-0)
This course focuses on selected mental illnesses & mental health interventions including recognition of defense mechanisms, the dynamics of human behavior & therapeutic communications. Students gain further knowledge in relating to clients and an increased understanding of their own behavior.
Prerequisite: Fall Cohort: NUR 125, 128, 150; Winter Cohort: NUR 225, 226, and 227.
Corequisite: NUR 224

NUR 224 Mental Health Nursing Clinical III 2(6-0)
This clinical course focuses on the use of the nursing process in planning and implementing care for individuals with mental illness, substance abuse or other mental disabilities. Includes use of communication skills and knowledge of mental health interventions in supporting positive coping behavior. Selected acute care health facilities are utilized for this course.
Prerequisite: Fall Cohort: NUR 125, NUR 128, NUR 152 Winter Cohort: NUR 225, NUR 226, NUR 227.
Corequisite: NUR 223

NUR 225 Nursing Care of Adults II 4(4-0)
This course builds on NUR 125: Nursing Care of Adults I; concentrates on advanced acute medical-surgical and critical care problems of adult clients in the structured acute care health setting. Focus is on development of nursing care plans including nutritional therapy, drug therapy, nursing diagnosis & interventions, psychosocial needs, teaching, and referrals.
Prerequisite: Fall Cohort: NUR 221, NUR 222, NUR 223, NUR 224 Winter Cohort: NUR 125, NUR 128, NUR 152
Corequisite: NUR 226

NUR 226 Nursing Care of Adults Clinical IV 4(0-12)
This clinical course builds on NUR 128: Nursing Care of Adults Clinical II; focuses on the advanced medical-surgical and critical care clients with acute disease conditions. Focus is on the development and implementation of the nursing process. Clinical practice is in a selected structured acute care health facility with observational experience in the emergency department, critical care unit, angiography, cardiac catheterization lab, infusion center, and hemodialysis. This course also includes the practice and demonstration of competency of advanced nursing skills in the Clinical Simulation Center (CSC) at the college.
Prerequisite: Fall Cohort: NUR 221, NUR 222, NUR 223, NUR 224 Winter Cohort: NUR 125, NUR 128, NUR 152.
Corequisite: NUR 225

NUR 227 Leadership in Nursing 2(2-0)
This course provides the basics of leadership and management techniques to enable students to provide care to groups of clients. 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 nurse and stress management techniques. Students must be enrolled in a nursing clinical course concurrently with this course. This course is taught in a hybrid format.
Prerequisite: NUR 121, NUR 124, NUR 125, NUR 128, NUR 150, NUR 151, NUR 152; Fall cohort must also successfully complete NUR 221, NUR 222, NUR 223 and NUR 224.
Corequisite: NUR 225, NUR 226

NUR 228 Preceptorship Clinical V 3(90-9)
This is the capstone course for the Nursing program and is the clinical portion of the NUR 227 leadership course. The primary goal of this structured capstone clinical experience is to facilitate the role transition of student nurse to graduate nurse. The student nurse, under the direct guidance of a selected staff (preceptor), with faculty as a resource, applies theory to practice in real-life work situations. The student is required to complete 135 clinical hours for this course in an acute care health facility.
Prerequisites: NUR 221, NUR 222, NUR 223, NUR 224, NUR 225, NUR 226, NUR 227

**(ORT) ORIENTATION**

**ORT 101 TRIO Success Strategies I 0(0-0)**
This course is designed to provide students enrolled in the MMCC TRIO SSS grant cohort with skills to navigate the college systems and develop academic and personal strategies to empower them to successfully reach their academic goals. Some of the topics covered include Study Tips, Test Taking Strategies, Academic Support Services, Time Management, and Financial Aid. Restricted to students enrolled in the TRIO program.
Prerequisite: Must be enrolled as member of MMCC TRIO SSS cohort.

**ORT 201 TRIO Success Strategies II 0(0-0)**
This course is a continuation of ORT 101 and is designed to provide students enrolled in the MMCC TRIO SSS grant cohort with skills to navigate the college systems and develop academic and personal strategies to empower them to successfully reach their academic goals. Some of the topics covered include Learning Styles, Career Services, Financial Literacy, and Goal Setting. Restricted to students enrolled in the TRIO program.
Prerequisite: Must be enrolled as member of MMCC TRIO SSS cohort.

**(PED) PHYSICAL EDUCATION**

**PED 103 Body Mechanics/Aerobics 1(1-0)**
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 109 Beginning Dance Exercise 1.5(1.5-0)**
This course utilizes aspects of the following: modern dance, jazz dance, Duncan Dance, martial arts, yoga, and the Alexander Technique. Students will become familiar with their own inner rhythm and dance of fitness. The classes will stimulate, condition and prepare the body through the use of movement forms. This course will utilize the Nia Technique to combine the components listed above, primarily through dance/exercise routines, with very brief periods of verbal instruction.

**PED 110 Beginning Body Dynamics 1(1-0)**
This course combines elements of cardiovascular and strength training, martial arts movement, pilates, yoga, and dance into an integrated exercise routine. Through verbal instruction, students will perform movements designed to increase basic physical fitness. Knowledge of life-long fitness practices will also be gained.

**PED 119 Beginning Golf 1(1-0)**
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 1(1-0)**
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 132 Beginning Karate 1(1-0)**
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 145 Beginning Snowboarding 1(1-0)**
This is a course in basic snowboarding. The course includes instruction in the proper use of equipment, safety considerations, and the basic skills required to snowboard.

**PED 203 Intermediate Body Mechanics/Aerobics 1(1-0)**
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(1-0)**
This course is a continuation of PED 107.
Prerequisite: PED 107 or PED 108

**PED 208 Intermediate Kardio-Kickboxing 1.5(1.5-0)**
This course is a continuation of PED 108.
Prerequisites: PED 107 or PED 108

**PED 210 Intermediate Body Dynamics 1(1-0)**
This is the second in a series of courses combine elements of cardiovascular and strength training, martial arts movement, pilates, yoga, and dance into an integrated exercise routine. Through verbal instruction, students will perform movements designed to increase basic physical fitness. Knowledge of life-long fitness practices will also be gained.
Prerequisite: PED 110

**PED 219 Intermediate Golf 1(1-0)**
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 1(1-0)
Students begin upper/lower body separation leading to steered turns and matching of skis before the fall line is emphasized.

PED 232 Intermediate Karate 1(1-0)
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 243 Advanced Body Mechanics/Aerobics 1(1-0)
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(1-0)
Students are introduced to parallel skiing. Exercises to develop upper level dynamic skiing i.e. short radius, fall line skiing is emphasized.

PED 249 Advanced Golf 1(1-0)
A continuation of PED 219 with emphasis on accuracy, shot placement, selecting the right club, etc.

PED 251 Advanced Body Dynamics 1(1-0)
This is the third in a series of courses that combine elements of cardiovascular and strength training, martial arts movement, pilates, yoga, and dance into an integrated exercise routine. Through verbal instruction, students will perform movements designed to increase basic physical fitness. Knowledge of lifelong fitness practices will also be gained.
Prerequisites: PED 110, PED 210

PED 252 Advanced Karate 1(1-0)
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(3-0)
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.

PHL 201 Introductory Philosophy 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 and 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: Ideals & Realities 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 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 225 Chinese Philosophies 3(3-0)
This course surveys three branches of traditional Chinese philosophy (Confucianism, Daoism, and Buddhism) and includes comparisons with Western thought. Readings include translations of founding thinkers plus later commentaries. Emphasis will be on the relevance of these philosophies for thinking about how we should live.
Prerequisites: One philosophy course recommended, but not required.

PHL 290 – 299 Selected Topics 3(3-0)
These courses are designed to investigate various topics in Philosophy that are not included in current courses. Topics will be announced.

(PHT) PHARMACY TECHNOLOGY

PHT 104 Orient. to Pharmacy/Community Pharmacy Practicum 4(3-2)
This course presents an orientation to the work of pharmacy technicians and the context in which technicians work is performed in a community pharmacy setting. The concept of direct patient care and the technicians’ general role in delivery with particular emphasis on the complementary roles of pharmacists and technicians is presented and how they relate
in a community pharmacy setting.
Corequisites: ALH 100, PHT 105, PHT 106

**PHT 105 Pharmacy Law 2(2-0)**
This course presents information on the influence that medication laws, standards, and regulations have on pharmacy practice. Federal and State regulations that govern medicine use and standards of practice are presented. Laws, regulations and standards which govern the preparation of non-compounded, cytotoxic and other hazardous medication products are emphasized.
Corequisite: ALH 100, PHT 104, PHT 106

**PHT 106 Pharmaceutical Calculations 3(3-0)**
This course will present applications of pharmaceutical dosage calculations using various systems of measurements including conversions and applications of equations. This course also introduces basic business math skills, such as calculating inventory, purchasing, and profit margins.
Corequisite: ALH 100, PHT 104, PHT 105

**PHT 113 Orientation to Institutional Pharm Practices 4(3-2)**
This course presents information on how to assist the pharmacist in an institutional pharmacy. Students will learn about the basic structure and functioning of an institutional pharmacy. Students will gain hands-on experience in sterile and non-sterile compound product preparation. Emphasis will be on aseptic technique and parenteral product preparation where students develop skills in the manipulation of parenteral drug products.
Prerequisites: PHT 104, PHT 105, PHT 106
Corequisite: PHT 114 and either SPE 101 or SPE 257

**PHT 114 Pharmacology for Pharmacy Technicians 4(3.5-1)**
This course presents information on the use and side effects of prescription medications, nonprescription medications, and alternative therapies commonly used to treat diseases affecting the body systems. Students learn the brand and generic names, standard pronunciations, dosage forms, and routes of administration for medications.
Prerequisites: PHT 104, PHT 105, PHT 106
Corequisite: PHT 113 and either SPE 101 or SPE 257

**PHT 115 Pharmacy Technician Clinical 7(0-15)**
Skills and knowledge acquired during the first two semesters of the Pharmacy Technician program are applied in community and institutional pharmacy settings. All internship experience is under the supervision of a registered pharmacist. 160 hours will be completed in a community pharmacy setting and 160 hours will be completed in an institutional pharmacy setting for a total of 320 hours of internship experience.
Prerequisites: PHT 113, PHT 114, and either SPE 101 or SPE 257

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**PHY 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 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 MAT 170

**PHY 105 Introductory College Physics I 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 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 University Physics I 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.
Prerequisite: MAT.124 with a C or better
Corequisite: MAT 126 recommended

**PHY 212 University Physics II 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

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**(PL T) PLASTICS TECHNOLOGY**

**PLT 101 Survey of the Plastics Industry 2(2-0)**
This course is intended to provide the student a base foundation of the plastics industry; including the history of people, materials and processes that helped shape the modern plastics
industry. Various careers in the plastics industry and related industries, such as drafting, design, machining, electronics, maintenance, computer information systems, network and etc. will also be explored.

**PLT 110 Plastics and Polymer Materials 3(3-0)**

In this course students will be introduced to polymers, plastics, additives, fillers and reinforcements commonly used in modern plastics manufacturing. Students will study the physical and mechanical characteristics of thermoset and thermoplastic materials, define the different materials classifications and types and review criteria used for material selection and cost estimating as related to design, fit and function of finished goods.

**PLT 111 Plastics and Polymer Materials Testing 3(2-2)**

In this course students will be introduced to the ASTM (American Standards and Testing Methods) and ISO (International Standards Organization) testing procedures commonly used in the plastics manufacturing industry. Students will conduct physical and mechanical tests in accordance with the different test standards, including all pre and post analysis and report generating.

Corequisite: PLT.110

**PLT 120 Plastics Manufacturing Processes I 4(2-4)**

In this course students will study Injection Molding, Blow Molding and the Extrusion processes. This course will cover material and design differences for each application, processing difference and will include a concise review of pre and post molding activities for each process.

Prerequisite: PLT.101

**PLT 130 Thermoforming I 2(1-2)**

This course is an introduction to the plastics thermoforming process. Topics include health and safety of the thermoforming process, common materials, types and methods of thermoforming processes (i.e.: thick and thin gage forming), machinery and the economics of the thermoforming industry as a whole.

**PLT 135 Thermoforming II 2(1-2)**

This course is an advanced continuation of PLT 130: Thermoforming I. Advanced processing, trimming and forming techniques will be explored throughout the courses, including but not limited to, tooling, part/product development, processes troubleshooting, and equipment troubleshooting and machinery maintenance.

Prerequisite: PLT 130 or permission of instructor

**PLT 180 Plastics Internship I 3(3-0)**

This course is intended to provide students an on-site work experience in a plastics manufacturing company. Under cooperative supervision by the College and the work site Supervisor, students will further develop skills and gain training in the plastics engineering technology career field.

Prerequisite: 15 PLT Credits and permission of instructor

**PLT 215 Secondary Operations in Plastics Manufacturing 3(2-2)**

This course provides the student with basic knowledge of secondary processes associated with plastic product manufacturing. Common processes used in assembly, decorating, trimming, joining and packaging of plastic parts will be covered. Emphasis will be placed on the complete manufacturing process.

Prerequisite: PLT 101, PLT 110, PLT 120 & PLT 130 (If students from other disciplines such as DRT and IND, Permission of Instructor is required)

**PLT 225 Production Planning and Control 3(3-0)**

This course will introduce students to the basic fundamentals of production planning, scheduling and controlling, such as the development and application of software solutions, inventory management, and lean production concepts. Topics include: forecasting, sales and operations, scheduling, materials requirements, capacity management, production control, “partnering” activities, and system integration. The materials presented in the course are applicable in many different disciplines and manufacturing facilities beyond Plastics that involve the planning, scheduling and controlling of production.

Prerequisite: PLT 101 or Permission of Instructor

**PLT 235 Manufacturing Quality Systems 3(3-0)**

This course is designed to prepare students with modern concepts of quality control and assurance techniques as a body of managerial, technical, behavioral and economic knowledge. This course will introduce Lean, TQM, Kaizen, ISO and other waste reduction and quality operating systems to improve efficiency and effectiveness in manufacturing operations.

Prerequisite: PLT 101 or Permission of Instructor

**PLT 250 Plastics Product Development 4(3-2)**

This course is designed to provide students with the basic elements of plastic part design, mold design, tool design and how it differs from the concepts and principles of metal forming, fabrication, and etc. This course will use a variety of software, hardware and graphical design methods as well as traditional print reading, part identification and problem-based case studies. Special emphasis will be given to understanding the role of the following critical elements in plastics product and tool design, plastics material selections, mold fill analysis, finite element analysis, components and functions.

Prerequisite: PLT 101, PLT 110, PLT 120 & PLT 130 (If students from other disciplines such as DRT and IND, Permission of Instructor is required)

**POL 201 Introduction to American Government 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 3(3-0)**
These courses are designed to investigate various topics in
Political Science that are not included in current courses. Top-
ics will be announced.

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**PSC) 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

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**PSY) PSYCHOLOGY**

**PSY 101 Introduction to General Psychology 3(3-0)**
This class introduces students to the scientific discipline of
psychology. This course will include a comprehensive cover-
age of basic concepts and principles, terminology, important
trends in psychological research, and the application of this
research. Emphasis will be placed on contemporary perspec-
tives of psychology, including biological, learning, cognitive,
sociocultural, psychodynamic, and humanistic perspectives
in understanding normal and abnormal behavior and mental
processes.

**PSY 103 Human Relations 3(3-0)**
This is an applied social science course. Focus will be on theory
and research from the social sciences (primarily psychology)
that apply to an individual’s personal and professional devel-
opment. This course is not intended solely for psychology or
other social science majors, but for any student who is interested
in improving psychological well-being.

**PSY 205 Abnormal Psychology 3(3-0)**
This course introduces students to abnormal psychology
issues, including the criteria, nature, development, classifica-
tion and causes of mental disorders. Perspectives from each
of the major contemporary perspectives in psychology will
be included. In addition, major theories, significant research,
and methods of treatment associated with each of these ap-
proaches are presented.
Prerequisite: PSY 101.

**PSY 212 Developmental Psychology 3(3-0)**
This course introduces students to the description and ex-
planation 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. (Students who have taken HES 100 or an equivalent
will not also receive credit for PSY 212.)
Prerequisite: PSY 101.

**PSY 220 Introduction 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 is-
ues relating to test development and review.
Prerequisite: PSY 101.

**PSY 240 Theories of Personality 3(3-0)**
This course presents issues in the measurement & research of
personality. Historical & contemporary theories and theorists
from each of the major domains of psychology will be criti-
cally examined regarding each of the domains' emphasis on
development and assessment of personality. Application of
course material will be emphasized.
Prerequisite: PSY 101

**PSY 250 Clinical Interviewing and Counseling 3(3-0)**
This course is an introduction to theories of counseling as well
as the techniques and processes of client and counselor com-
munication. 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 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, and the promotion of academic and social participation in education and other environments.
Prerequisite: PSY 101

**PSY 283 Forensic Psychology 3(3-0)**
This course introduces students to the nature, development, and application of Forensic Psychology. Students will examine the field of Forensic Psychology and the many applications it has within the legal system and our society.
Prerequisite: PSY 101
Recommended: PSY 205

**PSY 285 Research Methods 3(3-0)**
This course provides an introduction to research methods in the social sciences. Research designs, data collection methods, basic statistical procedures, and ethical issues in research will be included. An APA-style research proposal will be completed.
Prerequisite: PSY 101, MAT 212

**PSY 290 - 299 Selected Topics 3(3-0)**
These courses are designed to investigate various topics in Psychology that are not included in current courses. Topics will be announced.

(PTA) **PHYSICAL THERAPIST ASSISTANT**

**PTA 101 Orientation to Physical Therapy 1(1-0)**
This introductory course provides an overview of the profession of physical therapy and focuses upon the role of the physical therapist assistant. Ethical and legal standards, cultural competence, professional behaviors, and standards of practice are emphasized. Communication skills are presented to better serve diverse patients/clients in the healthcare environment.
Prerequisite: Admission into the Program
Corequisite: PTA 105, 106, 111, 115 & 116

**PTA 105 Modalities I 1(1-0)**
This course includes instruction in the principles, indications, contraindications, precautions and techniques of biophysical agents, manual therapy and patient positioning. Basic documentation is introduced.
Prerequisite: Admission into the Program
Corequisite: PTA 106, PTA 110, PTA 111, PTA 115, PTA 116

**PTA 106 Modalities I Lab (0-6)**
This lab is coordinated with the lectures presented in Modalities I. Students gain hands-on experience with biophysical agents, manual therapy, vital signs and patient positioning. Basic documentation skills are practiced.
Prerequisites: Admission into the Program
Corequisite: PTA 105, 106, 110, 111, 115 & 116

**PTA 110 Therapeutic Exercise 1(1-0)**
Basic exercise theory and implementation are presented. Fitness concepts of flexibility, strength, endurance, coordination and relaxation are emphasized. Additionally, patient mobility with transfers and progressing to wheelchairs and assistive devices are introduced. The importance of patient and personal safety through proper posture, body mechanics and monitoring are emphasized.
Prerequisites: Admission into the Program
Corequisite: 105, 106, 111, 115 & 116

**PTA 111 Therapeutic Exercise Lab (0-6)**
This lab is coordinated with the lectures presented in Therapeutic Exercise. Students practice basic therapeutic exercise and fitness techniques. Students implement flexibility, strength, endurance, relaxation, and coordination programs. Students will also practice patient mobility with transfer techniques, wheelchairs, and assistive devices. Posture assessment and proper body mechanics are emphasized.
Prerequisites: Admission into the program
Corequisite: PTA 105, 106, 110, 115 & 116

**PTA 115 Clinical Kinesiology 1.5(1.5-0)**
This course provides an in-depth review of functional human anatomy with an emphasis on the neuro-musculoskeletal system. Students will develop an understanding of normal and abnormal movement patterns and gait. A thorough understanding of kinesiology is essential to the Physical Therapist Assistant in understanding pathologies and injuries and providing appropriate and effective treatment for their patients.
Prerequisites: Admission into the Program.
Corequisite: PTA 105, 106, 110, 111 & 116

**PTA 116 Clinical Kinesiology Lab (0-3)**
This lab is coordinated with the lectures presented in Clinical Kinesiology and provides practical observation, palpation and identification skills of basic anatomical landmarks, especially bones, joints and muscles. Normal movement patterns, functional activity analysis, and gait characteristics are included.
Prerequisites: Admission into the Program.
Corequisite: PTA 105, 106, 110, 111 & 115

**PTA 125 Measurement Techniques 1(1-0)**
Students are presented with the assessment techniques most commonly used in physical therapy. Treatment plans are based upon the objective findings of this data collection. Techniques of goniometry, muscle testing, sensory assessments, gait/posture analysis and balance assessment are presented.
Prerequisites: PTA 105, 106, 110, 111, 115, & 116.
Corequisite: PTA 125, 126, 130, & 140

PTA 126 Measurement Techniques Lab (0-6)
This lab is coordinated with lectures presented in Measurement Techniques and allows for hands on practice. Students participate in guided practice with the assessment techniques of goniometry, muscle testing, sensory assessments, gait/posture analysis and balance assessments.
Prerequisites: PTA 105, 106, 110, 111, 115 & 116.
Corequisite: PTA 125, 126, 130, & 140

PTA 130 Advanced Therapeutic Exercise 2(2-0)
This course presents the principles and guidelines for treating musculoskeletal conditions. Normal and abnormal tissue healing of musculoskeletal structures is emphasized as well as appropriate physical therapy interventions at different stages of healing. Other therapeutic exercises are presented for vascular disorders and improper posture.
Prerequisites: PTA 105, 106, 110, 111, 115 & 116.
Corequisite: PTA 125, 126, 131, & 140

PTA 131 Advanced Therapeutic Exercise Lab (0-6)
This lab is coordinated with the lectures presented in Advanced Therapeutic Exercise. Students participate in guided practice in providing physical therapy interventions for musculoskeletal conditions, as well as additional exercises for improper posture. Previous course information about basic therapeutic exercise and fitness are integrated into lab sessions.
Corequisites: PTA 125, 126, 130, & 140

PTA 140 Clinic I 4(0.5-10)
The full-time clinical education experience offers students opportunities to observe, assist with and implement treatment techniques which have been introduced in prior lecture and practiced in lab courses. The students are under direct supervision of a clinical instructor (physical therapist or physical therapist assistant) who facilitates learning. Students will be assigned to hospitals, out-patient clinics, nursing and rehabilitation centers, or home care settings for four weeks.
Prerequisites: PTA 105, 106, 110, 111, 115, & 116.
Corequisites: PTA 125, 126, 130, & 140

PTA 205 Modalities II 2(2-0)
The basic concepts, terminology and physiology of electrotherapeutic agents are introduced. The course guides the student in understanding treatment parameters and the safe management of equipment for pain control, edema/swelling reduction, muscle spasm relief and strengthening.
Prerequisites: PTA 125, 126, 130, 131 & 140
Corequisites: PTA 206, 207, & 208

PTA 206 Modalities II Lab 1.5(1.5-4.5)
This lab is coordinated with the lectures presented in Modalities II. Students participate in guided practice of safe and effective delivery of electrotherapeutic agents. The students use a variety of modalities for decreasing pain, increasing strength, reducing edema/swelling, and muscle spasm relief. Documentation skills are reinforced.
Prerequisites: PTA 125, 126, 130, 131 & 140
Corequisites: PTA 205, 207 & 208

PTA 207 Rehabilitation Techniques 2(2-0)
Rehabilitation techniques are introduced for neurological and pathological conditions. Normal growth and development, as well as orthotics, prosthetics and airway clearance techniques are covered.
Prerequisites: PTA 125, 126, 130, 131 & 140
Corequisites: PTA 205, 206 & 208

PTA 208 Rehabilitation Techniques Lab 2(2-6)
This lab is coordinated with the lectures presented in Rehabilitation Techniques. Rehabilitation treatments are practiced for common neurological and pathological conditions. Students also gain hands on experience with orthotics, prosthetics, adaptive equipment, airway clearance techniques and normal growth and development.
Prerequisites: PTA 125, 126, 130, 131 & 140
Corequisites: PTA 205, 206 & 207

PTA 210 Clinical Forum 3(3-0)
This seminar course offers networking with classmates and instructors to solve clinical problems, improve communication skills, and reinforce professional behavior. Emphasis is on evidence-based clinical decision making, ethical practice, planning for future employment, and professional growth.
Prerequisites: PTA 205, 206, 207 & 208
Corequisites: PTA 240

PTA 240 Clinic II 12(3-15)
The full time clinical education experience offers students opportunities to implement and develop entry level competence in treatment techniques which have been introduced in prior lecture and practiced in lab courses. The students are under direct supervision of a clinical instructor (physical therapist or physical therapist assistant) who facilitates learning. Students will be assigned to hospitals, out-patient clinics, nursing and rehabilitation centers, or home care settings for 14 weeks.
Prerequisites: PTA 205, 206, 207, 208
Corequisites: PTA 210
RAD 100 Introduction to Radiologic Technology 3(2-2)
This course is an introduction to the radiologic technology profession. Also presented are an introduction to the principles of radiographic exposure, digital imaging, and image processing. Practice in the fundamentals of equipment operation and image processing in the Campus x-ray lab provides the basis for developing initial psychomotor skills necessary to function as a radiologic technologist.
Prerequisite: Admission to the Program
Corequisite: RAD 110

RAD 101 Introduction to Radiologic Technology-Independent Study 1(1-0)
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 2(2-0)
Radiation Physics (RAD 110) is a course designed to prepare students with a basic understanding of the principles of Radiation Physics, X-Ray Production and Interactions. Areas of concentration include Units of Measurement, Forces, Motion, Electrostatics, Magnetism, Basic Electrical Circuits, and Atomic and Nuclear Physics. Emphasis will be placed on the study of ionizing radiation which is especially important to the Radiographer. Two hours per week will be devoted to lecture and discussion and the remaining two hours will be spent in the laboratory conducting experiments associated with the lecture topics.
Prerequisite: Admission to the Radiography Program
Corequisite: RAD 100

RAD 111 Radiation Physics-Independent Study 1(1-0)
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)
This course contains 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. The basic principles of digital imaging are presented. Lab exercises augment the instruction.
Prerequisites: RAD 100 and RAD 110
Corequisites: RAD 130

RAD 130 Radiographic Procedures I 4(2.5-3)
An introduction to radiographic positioning fundamentals, terminology, and procedures. The study of the fundamentals of patient care is integrated with study of the basic radiographic procedures of the thorax, abdomen, upper and lower extremities, pelvic girdle, spinal column, cranium, facial bones, and sinuses. Digital imaging basics are studied as well. Practice of the basic skills required in these procedures will be done in the campus x-ray labs. A cumulative final will be given the last week of classes.
Prerequisites: RAD 100 and RAD 110
Corequisite: RAD 115

RAD 175 Radiographic Procedures II 3(2-2)
A continuation of Radiographic Positioning I Fundamentals, terminology and procedures. The study of the fundamentals of patient care is integrated with study of the basic radiographic procedures of the upper gastrointestinal system, lower gastrointestinal system, gall bladder and biliary ducts, urinary system, mammary gland, pediatric radiography, arthrophy, and myelography. Practice of the basic skills required in these procedures will take place in the campus x-ray lab. A cumulative final will be given the last week of classes.
Prerequisites: RAD 115 and RAD 130
Corequisites: RAD 180
RAD 176 Radiographic Positioning - Review 1(1-0)
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, arthrogram, 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 180 Clinical Education I 6(0-18)
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.
Prerequisite: RAD 115 and RAD 130
Corequisites: RAD 175

RAD 200 Clinical Education I 8(0-24)
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 205 Clinical Education II 7(0-21)
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 211 Sectional Anatomy 1(1-0)
Content begins with a review of gross anatomy of the entire body. Detailed study of gross anatomical structures will be conducted systematically for location, relationship to other structures and function. Gross anatomical structures are located and identified in axial (transverse), sagittal, coronal and orthogonal (oblique) planes. Illustrations and anatomy images will be compared with MR and CT images in the same imaging planes and at the same level when applicable. The characteristic appearance of each anatomical structure as it appears on a CT, MR and ultrasound image, when applicable, will be stressed.
Prerequisites: BIO 141, BIO 142, RAD 175, RAD 180
Corequisites: RAD 201, RAD 205, RAD 214, RAD 215, BIO.110.

RAD 213 Radiation Protection 1(1-0)
This course continues and summarizes the study of the principles of radiation protection included in previous program courses. The practical applications of radiation protection in the clinical setting are discussed. Minimizing patient exposure while maintaining image quality is emphasized, as is radiation safety for medical imaging and other medical professionals.
Prerequisites: RAD 175 and RAD 180
Corequisites: RAD 201, RAD 205, and RAD 215

RAD 215 Radiation Biology 1(1-0)
This course provides a study of the application of radiation and its effects. Areas of concentration are on the response and the biological effects of ionizing radiation on cells and tissues.
Prerequisites: RAD 175 and RAD 180
Corequisites: RAD 201, RAD 205, RAD 211, RAD 213, and BIO 110

RAD 217 Radiographic 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(0-27)
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 2(2-0)
This course is the second in a series of courses intended to augment first year introductory courses and complement clinical education. Topics covered are critical thinking and problem solving skills in radiography and communication in medical imaging, and career planning. In addition, students evaluate selected radiographs taken during clinical education. A capstone portfolio is produced. Review for the American Registry of Radiologic Technologists examination is continued. Students are required to pass a capstone simulated registry examination.
Prerequisites: RAD 201, RAD 205, RAD 211, RAD 213, and RAD 215
Corequisites: RAD 217, RAD 230, and RAD 250

RAD 225 Clinical Education III 5(0-15)
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 220, RAD 221
Corequisite: RAD 225.

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 Rad Review Series Capstone 1(1-0)
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 0.5(0-1)
The course discusses the principles of a department wide quality assurance program. The concepts, instrumentation, and testing methods used in radiology departments for quality control of the radiographic imaging system(s) are also covered.
Prerequisites: RAD 201, RAD 205, RAD 211, RAD 213, RAD 215
Corequisites: RAD 217, RAD 221, RAD 250

RAD 240 Radiographic Review and Refresher 1(1-0)
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 students 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.

RAD 250 Clinical Education III 7.5(0-22.5)
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 220, RAD 221
Corequisite: RAD 225.

(REL) RELIGION

REL 111 Intro to Academic Study of Religion 3(3-0)
Major forms of world religions, religious activity, and experience studied as an essential element of human life. Dimensions of the academic study of religion covered include myth, meaning, ritual, symbolism, traditions, religious social institutions, comparative religious study, the sacred, civil religion, religious art, and the social creation of moral ideologies. REL 111 and SSC 111 are cross-listed. Students cannot receive credit for both courses.

REL 200 Religion, Race, Class & Discrimination 3(3-0)
An introduction for beginning students to the study of the experiences of Americans who have lived with race and class discrimination in American society. Native American, African-
American, and Hispanic-American groups provide the focus for the class.

**REL 225 Death & Dying 3(3-0)**
Each of us must deal with a complex of personal responses to death and grief while ascribing meaning and purpose to our lives. In a rapidly changing social and cultural world, conceptualizations of death, living, and grieving often compete with traditional community relationships and meaning. Death, living, and dying will be examined using dimensions of the academic study of Religion, Social Sciences, and the humanities. Death, grieving, and images and ideas of life will be explored. Topics covered include cultural, personal, emotional, legal, philosophical, moral, medical, social, and religious conceptualizations of living and dying. Myth, meaning, visual culture, music, ritual, symbolism, traditions, religious social institutions, civil religion, and the social creation of religious moral ideologies will be examined in the course.

REL 225 and SSC 225 are cross-listed. Students cannot receive credit for both courses.

**REL 250 African-American Religion 3(3-0)**
An introduction for beginning students to the study of African-American Religion from African religious expression, syncratic expressions, Christianity, and Islam to contemporary religious movements.

**REL 290 - 299 Special Topics 3(3-0)**
These courses are designed to investigate various topics in Religion that are not included in current courses. Topics will be announced.

**SCI 200 Science, Technology, & Society 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 (ENG 111; SPE 101 or SPE 257)

**SCI 290 - 299 Selected Topics 3 (3-0)**
These courses are designed to investigate various topics in Science that are not included in current courses. Topics will be announced.

**SOC 101 Principles of Sociology 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(1-1)**
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.

**SOC 200 Contemporary Social Problems 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 202 Social Psychology 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 220 Sexuality and Society 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.
Prerequisite: SOC 250 recommended

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 - 299 Current Topics in Sociology 3(3-0)
Courses designed to investigate current topics of sociological relevance not included in courses currently listed. Topics will be announced.

(SPE) SPEECH

SPE 101 Fundamentals of Communications 3(3-0)
A basic course in interpersonal communication & public speaking. Through observation, presentation, games, roleplay, 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 I 3(3-0)
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(4-0)
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 yourself 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(3-0)
Continuation of SPE 105. This course increases the students 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(4-0)
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(4-0)
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 3(3-0)
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 3(3-3)
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(1-0)
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.

(SP) SPANISH

SPN 101 Elementary Spanish I 4(4-0)
This course is designed to introduce students to basic conversational Spanish. It emphasizes essential grammar and touches on Hispanic culture since culture is an essential part in learning a new language. Student should, upon course completion, have the ability to speak, write, and understand basic Spanish conversation.

SPN 102 Elementary Spanish II 4(4-0)
SPN 102 is a continuation of SPN 101; therefore, it will begin with a review of the material covered in SPN 101. Students in SPN 102 will continue the study of grammar and vocabulary and will use these to communicate utilizing speaking, writing, listening, and reading skills. The course is designed to provide the basis for further study of Spanish at an intermediate level. Students are expected to study the material outside of class and come to class prepared to participate.
Prerequisite: SPN 101 or equivalent or 1 year of high school Spanish.

SPN 201 Intermediate Spanish I 4(4-0)
Spanish 201 is a course designed to help students in the acquisition of language skills necessary for verbal communication, grammar, reading, and writing at the intermediate level in Spanish. Cultural themes of the Hispanic world will be discussed in order to have a better cultural understanding.
Prerequisite: SPN 102 or equivalent course, or 2 years of High School Spanish.
**SSC (SOCIAL SCIENCE)**

**SSC 111 Intro to the Academic Study of Religion 3(3-0)**

Major forms of world religions, religious activity, and experience studied as an essential element of human life. Dimensions of the academic study of religion covered include myth, meaning, ritual, symbolism, traditions, religious social institutions, comparative religious study, the sacred, civil religion, religious art, and the social creation of moral ideologies.

SSC 111 and REL 111 are cross-listed. Students cannot receive credit for both courses.

**SSC 200 The Social Sciences & Contemporary America 3(3-0)**

This course will introduce each of the various social sciences and demonstrate their respective and unique perspectives on the human experience. It will also endeavor to help the student to understand the scientific method of inquiry and its advantages, as well as other ways of knowing. Finally, through a thematic approach, the student will seek to apply the various social science perspectives to illuminate understanding of his/her world.

Prerequisites: Level I General Education courses (ENG 111; SPE 101 or SPE 257)

**SSC 225 Death & Dying 3(3-0)**

Each of us must deal with a complex of personal responses to death and grief while ascribing meaning and purpose to our lives. In a rapidly changing social and cultural world, conceptualizations of death, living, and dying will be examined using dimensions of the academic study of Religion, Social Sciences, and the humanities. Death, grieving, and images and ideas of life will be explored. Topics covered include cultural, personal, emotional, legal, philosophical, moral, medical, social, and religious conceptualizations of living and dying. Myth, meaning, visual culture, music, ritual, symbolism, traditions, religious social institutions, civil religion, and the social creation of religious moral ideologies will be examined in the course.

SSC 225 and REL 225 are cross-listed. Students cannot receive credit for both courses.

**TAI (THEATRE)**

**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.

**WLD (WELDING TECHNOLOGY)**

**WLD 126 Sense IA 3(2-2)**

Fundamentals of oxy-acetylene cutting, oxy-acetylene brazing, ARC welding, MIG welding, TIG welding, F.C.A.W, manual plasma cutting, carbon arc gouging and safety procedures are included in this course. Emphasis is placed on safe welding procedures in Flat, Horizontal positions and a variety of joint types.

Prerequisite: WLD.126

**WLD 127 Sense IB 3(2-2)**

Fundamentals of oxy-acetylene cutting, ARC welding, MIG welding, TIG welding, F.C.A.W, manual plasma cutting, carbon arc gouging and safety procedures are included in this course. Emphasis is placed on safe welding procedures in all positions, a variety of joint types and in materials Steel, Stainless Steel and Aluminum

Prerequisites: WLD 126 and DRF 101

Corequisite: WLD 127

**WLD 130 Metal Fabrication 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 126 and DRF 101
WLD 150 Non-Destructive Testing I 3(3-0)
A course to familiarize 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 8(12-0)
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 8(12-0)
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-oxy-acetylene electric-eye cutting torches. Prerequisite: WLD 225

WLD 227 Advanced Industrial Welding 8(12-0)
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 3(4-0)
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 125 or WLD.127

WLD 246 Advanced TIG Pipe Welding 3(4-0)
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 249 Beginning Robotics 3(4-0)
This course will enable students to set-up and teach the robot to weld parts or assemblies in an efficient manner. Students will learn the appropriate safety techniques required to operate and maintain the robot. Students will learn to write and copy various programs utilizing the World Coordinate System, and they will edit and test these programs.
Prerequisites: WLD 126 and WLD 127 with a grade of C or better

WLD 281 Spec Projects - Welding I 2(2-2)
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 Spec Projects - Welding II 2(2-0)
Continuation of WLD 281. Prerequisite: WLD 281

WLD 290 Special Topics: Begin. Metal Sculpture 3(3-3)
This course is designed to introduce students to the art of shaping and joining various types of metal to create works of art. They will learn how to gas weld, braze, solder, and arc weld many types of metals to create class projects. They will also learn how to fabricate, cut, bend and roll all types of metals. This course will also prepare students to continue in a specific area of concentration or interest in Advanced Metal Sculpture II.
This course will also prepare students to continue in a specific area of concentration or interest in Advanced Metal Sculpture II.
Customized Workforce Training

Mid Michigan Community College is committed to providing highly effective training solutions for business and industry throughout the Mid Michigan area. We will help your organization develop a training plan and identify highly qualified practitioners with industry experience and training expertise to meet your specific needs. We provide training that is available when and where you need it, day or night, on-site at your facility or at one of our two campus locations.

A sample of courses:
- CAD/CAM/Product Lifecycle Management
- Construction Pre-License
- Construction Continued Competency Courses
- Information Technology
- Leadership and Supervisory Skills
- Manufacturing (Welding, CNC, etc.)
- Program and Project Management
- Quality/Lean/Six sigma/ISO
- Sales and Customer Service

MMCC offers more than 1200 classes that can be customized to meet your needs.

Short-Term Health Care Programs

Phlebotomy (193 Hours): This 8 week program will prepare students to function as phlebotomists whose responsibilities include: venipuncture and blood draw micro-collection techniques. The procedures are performed on patients of all ages at clinics, hospital labs, outpatient care centers and nursing homes.

Certified Nurse Aide (120 Hours): This 6 week program is divided into two parts, and includes classroom activities, skill practice time in the laboratory, and supervised clinical practice at an area health care agency.

PART ONE (68 Hours): Classroom education at the Harrison or Mt. Pleasant Campus of Mid Michigan Community College.

PART TWO (52 Hours): Clinical/Lab “hands on” training at a local health care facility. The training is designed to prepare the individual to fulfill the role of direct care giver/nurse aide in a health care setting. The CNA program introduces scientific principles and skills which will optimize the client’s functional independence and support, and promote their individual rights.

Electrical Apprenticeship

Under new regulations established by Michigan’s Electrical Administrative Board, all electrical apprentices must participate in an approved electrical training program. Apprentices are required to complete 144 hours of training per year until they have attained the 576 hours required by the Electrical Apprenticeship Bureau and the Department of Labor.

Mid Michigan Community College is an approved provider of related technical instruction that will meet the education requirements of apprentices. MMCC, through its Technical Education Center, offers both on-campus and online courses that meet the State’s standards. This unique on line program, offers computer based learning that may be completed anywhere at any time at your own pace.

Upon completion of on line learning, on site testing at MMCC is required.

Rapid Response Programs

Rapid Response Manufacturing - Plastics: This 120 hour program was designed in conjunction with business and industry to provide an entry-level training program in basic welding. The program consist of a series of seven (7) modules designed to provide students with the basic skills, knowledge and ability for an entry level position in any number of welding occupations. Course modules include: safety and Health for Welders, Blueprint Reading and Welding Symbols Interpretations, Welding Inspection and Testing, thermal Cutting, Welding I – Shielded Metal Arc, Welding II – GMAW and FCAW Welding and Welding III – GTAW Welding. The program uses a combination of classroom instruction and “hands-on” lab training.

Rapid Response CNC Operations: This 160 hour program was designed in conjunction with business and industry to provide an entry-level training program in the area of basic CNC machining. The program consists of six (6) modules designed to provide students with the basic skills, knowledge and abilities for an entry level position in any number of machining occupations. Course modules include: Industrial Blueprint Reading, Instrumentation and Measurement, Metal Machining Basics, Precision Machining, CNC I – Theory & Operations and CNC II – Operation and Programming. The program uses a combination of classroom instruction and “hands-on” lab training.

CDLA - Truck Driving Program: This five-week, 240-hour course and its associated written and driving exams provide participants their CDL Class A licenses.

The objectives of the Commercial Driver License (CDL) Class A Training Program at Mid Michigan Community College are to train drivers in the theory and practical application of driving commercial vehicles. Each student will learn key functions of vehicle systems; e.g. engine, auxiliary systems, brakes, drive train coupling systems, suspension and the importance of each to safe and efficient and safe operation, Federal and State requirements, including for permits. Students will also learn proficiency development practice on range and street operations.
The Michigan Small Business Development Center (Michigan SBDC) at Grand Valley State University’s Seidman College of Business provides market research for all 83 counties in Michigan. In addition to providing market research, a Michigan SBDC Regional Consultant will assist the company in analyzing the research and applying the information to a growth strategy.

The goal of Information Based Planning (Market Research) is to provide industry, competitive, demographic, financial, and website analysis information to use in planning and making business decisions driving economic growth.

The Michigan SBDC accesses a variety of resources to provide crucial information to existing businesses including the following.

- Industry Trends – Identify new markets
- Customer Demographics – Improve marketing efforts
- Competition – Determine competitive advantage
- Financial Metrics – Improve financial performance

"The Market Research that I acquired by working with the SBDC market research team was instrumental in the growth of my company. Not only did they provide me the information at no-cost, they also worked with me to understand and apply the research to my business. What a valuable resource to Michigan’s small businesses”.

Small Business Owner

"We really appreciate the level and depth of the research report and all of the recommendations - it has helped immensely in how we are displaying and utilizing our web based advertising.”

Richard A. West, M.S.
President, West Labs Scientific LLC

SEO ANALYSIS
In response to the needs of our clients, the Michigan SBDC Research Team developed a customized SEO Online Marketing Report. Each report offers an in-depth analysis of a client’s website, providing demographics on the visitors, tips for improving the design, and keywords to drive traffic to the site and increase sales.

Contact your local Michigan SBDC Regional office at 989-317-4623 or www.SBDCMichigan.org
The Michigan SBDC is dedicated to helping your company expand its opportunities. Three components impact this – strategy, finance and exporting. The SBDC assembles teams to assist high-growth companies with comprehensive business tools and analysis. The tools and analysis help you manage your company more effectively.

Strategy Implementation
- Diversifying markets
- Increasing profitable sales
- Conducting secondary industry and market research
- Improving management and operational effectiveness
- Developing strategic plans
- Supporting strategic plan implementation
- Buying or selling your business

Financial Management
- Preparing loan packages for lenders
- Comparing financials to industry benchmarks to identify areas of improvement
- Using financials as a tool to manage your business
- Developing “what-if” scenarios for new initiatives’ financial impact on your business

Export Strategy
- Evaluating market opportunities and aligning internal resources in an export diversification plan
- Assisting with access to export financing
- Assisting with access to market research, regulatory data and other resources
- Evaluating online presence potential through International SEO for qualifying clients

As your business grows, decision making and operations become more complex and require improvement. The Michigan SBDC has the expertise and tools to help transition your company.

Contact us for more information:
989-317-4623 or www.SBDCmichigan.org

“The SBDC Business Growth Consultant helped us put together a financial plan that allowed us to better manage distribution to current customers, as well as expand to new markets. We put the plan into action in June of 2012 and over the next six months saw 22% more growth than the entire previous year.”

Larry Johnson
Dee-Blast Corporation
**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 and/or applicable exam. A recording fee may be charged at the time of transferring the advanced credit, please contact the Office of Enrollment Services for more information on applicable fees.

**ADVANCED PLACEMENT PROGRAM**

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

The AP 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**

Articulation is a term used to describe the process that facilitates the transition of a student from one educational institution to another, or from one level of education to the next with minimum duplication of coursework. High school students successfully completing career/technical training may receive college credit through articulation. For more information please contact Office of Enrollment Services.

**CREDIT BY EXAMINATION**

A registered student who has had experience or background comparable to a course offered at Mid Michigan Community College may wish to receive credit for the course through the Credit by Examination procedure. The procedure should be initiated with The Library Learning Services on the Harrison or Mt. Pleasant campus to complete the Credit by Examination permission form. It is recommended to see an advisor if the Credit by Examination process is an option for the specific program.

The student will then pay a set fee ($15.00 per credit for general education courses and $20.00 per credit for non-general education courses) to cover testing costs. The Library Learning Services will make the necessary arrangements for the examination. 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)**

The College Level Examination Program (CLEP) sponsored by the College Board affords students the opportunity to demonstrate their academic proficiency in specific subjects. After completing the CLEP exam(s), students should have their scores sent directly to the Office of Enrollment Services for evaluation.

Policies concerning the use of CLEP examinations at MMCC are developed and controlled by the Office of Enrollment Services. The minimum scores for CLEP subject examinations are determined by the department authorizing credit for the subject. Credit will be awarded for German Level 2 with a score of 63, for French Level 2 with a score of 52 and for all other approved exams with a score of 50 or above. See the Office of Enrollment Services for a detailed list of CLEP subject exams accepted for credit, as well as their critical cut scores.

To be eligible for credit for CLEP scores, a student must have been granted regular admissions at MMCC and an official score report must be sent directly from the College Board. CLEP examination credit may not be used to repeat any course(s) previously taken. Grades for the CLEP examination(s), where credit is granted, will be recorded as credit (CR) on a student's transcript. MMCC currently does not proctor the CLEP examination. See the College Board website (www.collegeboard.com) for a list of testing centers.

**MILITARY TRAINING CREDIT**

Veterans are eligible to receive academic credit for their military experience. To have military experience evaluated for credit, veterans should send their certified DD 214 to the American Council on Education (www.acenet.edu). MMCC will follow the American Council on Education’s recommendations for evaluating credits. In addition, MMCC will grant veterans 2 Physical Education elective credits (PED XXX). Veterans planning to transfer from MMCC should be aware that other colleges/universities may not accept the credit for military training given by MMCC.

**NON-TRADITIONAL CREDIT**

Students possessing education experiences or skills gained through non-traditional sources (i.e. work experience, life experience, etc.) may request such experiences be evaluated for credit. Students may obtain a Non-Traditional Credit Application in the Office of Enrollment Services. The completed Application should be returned to the Office of Enrollment Services with any and all supporting documentation for evaluation. If credit is granted, a $20 per credit hour fee will be charged at the time the non-traditional credit is recorded. Students should be aware that non-traditional credit typically does not transfer to other colleges/universities.

**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 sent directly to MMCC from the issuing institution. Transcripts not sent directly from an issuing institution will be considered unofficial and will not be evaluated.

Credits are transferred for courses with a minimum grade of "C" or better. 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.

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 with the exception of math. 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 with the exception of math.

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.

ADVISING/CAREER PLANNING/COUNSELING

ACADEMIC ADVISING

Academic advisors are available to students throughout the academic year and between sessions. Advisors are trained to assist students on a one-to-one basis with career selection, program planning, course scheduling, and to provide assistance for students who are experiencing academic difficulties. Appointments to see an advisor may be made by calling (989) 386-6622, extension 100 or (989) 773-6622, extension 100.

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

1. All students who are new to MMCC which includes first-time freshmen and transfer.
2. All students who have accumulated less than 12 MMCC credits (as displayed on the transcript).
3. All students who are on academic probation or re-entering college after being academically dismissed.
4. All students who have not attended MMCC for more than a year.

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.

Prior to meeting with an advisor, students will need to complete an admissions application; provide ACT scores or take the Accuplacer Placement test.

CAREER EXPLORATION AND 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. Students may meet with the Career Coordinator and/or participate in career exploration workshops.

PERSONAL COUNSELING

The college does not provide personal counseling services. The College maintains a list of resources for referral purposes to local crisis centers and mental health clinics for personal counseling needs.

DISABILITY SERVICES OFFICE

Mid Michigan Community College is committed to making accommodations and providing services to students with documented disabilities, which interfere with the learning process. Accommodations will vary and depend on the specific disability. Services may include: readers, note-takers, interpreters, books on CD’s, adaptive equipment, assistive technology, alternative testing methods, assistance with accessibility and referrals to college and community resources.

Students must provide written verification of their disability before accommodations can be made. In addition, students must register for services and reapply each semester for continued support. To inquire about these services, please contact Disability Services Office at 989.386.6636.

VOCATIONAL EDUCATION ASSISTANCE PROGRAM (VEAP)

The Carl D. Perkins Grant is a federal program designed to help MMCC students who are enrolled in a two year state approved occupational programs. Special population students must qualify under one or more of the following categories: single parent, displaced homemaker, non-traditional career choice, documented disability, limited English or economically disadvantaged.

Students who are eligible must apply for financial aid (Pell) and have an unmet need as defined by financial aid. Assistance may be in the form of: academic and career counseling, col-
lege and community agency referrals, registration assistance and financial assistance - which may include help with transportation, child care, books and tuition. Assistance is limited and interested students are required to submit an application each semester by the application deadline to be considered. Priority consideration will be given to those students who have the greatest unmet need and are closest to completing their degree. For additional information please contact the Vocational Educational Assistance Coordinator at (989) 386-6622, ext. 394.

ENROLLMENT SERVICES

REGISTRATION

Returning Students
1. Students who have at least 12 credit hours recorded on their transcript, have no current registration blocks and are in good academic standing may register in person or on MidWeb. All others must see an advisor.
2. Pay tuition in full, enroll in the NBS (Nelnet Business Solutions) Tuition Management Plan, or have sufficient Financial Aid awarded by the Tuition due date. A non-refundable enrollment fee ($50 or $25) is included in the tuition and fees.

New & First Time Students
1. Complete an application for admission. (Admissions Application available online at www.midmich.edu/admissions)
2. Schedule an Assessment.
3. Complete the College Student Inventory.
4. Schedule appointment with an advisor.
5. After advising appointment, register for classes.
6. Pay tuition in full, enroll in the NBS (Nelnet Business Solutions) Tuition Management Plan, or have sufficient Financial Aid awarded by the Tuition due date. A non-refundable enrollment fee ($50 or $25) is included in the tuition and fees.

Guest Students
Guest students are those attending other colleges who wish to take courses at MMCC for transfer credit. Note: Financial aid is not available to guest students. Guest students should follow these easy steps for admission and registration:
1. Complete an application for admission. (Admissions Application available online at www.midmich.edu/guest)
2. Complete our Accuplacer assessment if you intend on taking a Math or English course for the first time in college.
3. It is highly recommended that guest students schedule a brief meeting with an academic advisor to verify the credits transfer to the home institution and for a demonstration of online services - MidWeb, Moodle, and midmich email.
4. Verify MMCC prerequisites through your institution’s unofficial transcript. See Enrollment Services website (www.midmich.edu/enrollment) for more information.
5. Pay your tuition by the tuition due date. A nonrefundable enrollment fee is included in the fees.

ADDING COURSES
Students may add courses to their schedule during the schedule adjustment period by completing the Drop/Add form obtained in the Office of Enrollment Services or by utilizing the MidWeb system (if eligible to do so).

DROPPING COURSES
Students may drop courses from their schedule by completing the Drop/Add form obtained in the Office of Enrollment Services or by utilizing the MidWeb system (if eligible to do so). Refund of tuition will be based on the Tuition and Fee Refund Schedule. Courses that are dropped after the schedule adjustment period will be assigned a grade of “W” with no grade point average penalty. Students will not be allowed to drop courses after the posted last day to drop date.

INSTITUTIONAL DROP
MMCC can drop a student who has never attended any classes, or has quit attending classes during a semester. Institutional considerations, including reporting requirements, will guide the utilization of this policy. If a student feels they have been identified in error, they may contact the Office of Enrollment Services.

AUDITING A COURSE
A course in which a student enrolls for no grade and no credit is regarded as an Audit. Student must pay the regular tuition and fees. 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 schedule adjustment 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 grade point average (GPA); the higher grade with its credit hours and honor points will be computed into the GPA. The GPA is found by dividing the total honor points earned by the GPA hours. 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 be allowed to re-enroll for a course for a third time but must complete a Same Course Enrollment Form in consultation with an advisor prior to registering.

3. For a student to re-enroll in a course for a fourth time or more the student must make a request in writing and receive approval from the Executive Dean or Associate Dean of Student and Academic Support Services plus agree, in writing, to pay the complete course cost and an additional $50 per contact hour fee.*

* The purpose for requiring this fee 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 must initiate formal withdrawal procedures with the Office of Enrollment Services to 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.

STUDENT CREDIT HOUR LOAD

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.

The normal credit hour load for a full-time student consists of 15-17 semester credit hours. A student may not elect more than 18 semester credit hours without special permission from the Associate Dean of Student and Academic Support Services. Students wishing to enroll in more than 20 semester credit hours must receive special permission from the Vice President of Academic Services.

Students earning 0 through 23.9 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 Instructional Administrator, and must apply and be approved prior to the beginning of the semester the honors option will be taken.

INDEPENDENT STUDY COURSE WORK

A student may, at the discretion of the instructor, register for a course as an independent study. Independent study courses contain the same learning objectives and expectations as courses taught through in-class or online instructional formats. Independent study courses should only be used after all other instructional methods have been considered. All independent study coursework must be approved by the appropriate faculty member AND their 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.

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<tr>
<th>Grade</th>
<th>Significance</th>
<th>Points Per Semester Hour</th>
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<tbody>
<tr>
<td>A</td>
<td>Superior</td>
<td>4.0</td>
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<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
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<tr>
<td>B+</td>
<td>Above Average</td>
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<td>C</td>
<td></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></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>
</tbody>
</table>

Not included in computing hours and points

CR/NC CR="C" or better
NC="C-" or below

CR Transfer credit, Advanced credit, Articulation credit, Credit by Examination and Non-Traditional credit
The Grade Point Average (GPA) is found by dividing the total honor points earned by the GPA hours.

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

**INCOMPLETE GRADES**

In order to qualify for an incomplete contract the student must have completed at least 75% of the course work. It is at the discretion of the instructor to grant an incomplete grade (I).

Upon completion of the course requirements, said instructor will change the student’s grade from an “I” (Incomplete) to the regular letter grade earned by the student in the course. Failure of the student to comply with these requirements by the due date will result in an automatic change of the incomplete grade to a grade of “F” (Failure).

The following is the maximum timeline for completing an incomplete contract. If the incomplete is for the Fall semester, all course requirements must be completed by the end of the next Winter Semester. An incomplete for Winter semester, must be completed by the end of the next Fall semester. An incomplete for the Spring/Summer semester must be completed by the end of the next Fall semester.

**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 Office of Enrollment Services during the official schedule adjustment 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 is a "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 noted on MidWeb.

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.

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 schedule adjustment period.

**GRADE REPORTS**

Grade reports can be obtained on MidWeb which can be accessed through Mid Michigan Community College’s website at www.midmich.edu. Grade reports will not be released for students who have outstanding bills in the Business Office or who have overdue books in the Library Learning Services.

**GRADE CHANGE AND REVIEW PROCEDURES**

Responsibility for resolving grade disputes is shared among the instructor, the student, the appropriate Academic Administrator, 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 student has a question about a grade, the student must first discuss the matter with the instructor. The instructor should discuss the matter willingly and provide clear evidence for the basis of the grade issued. In turn, the student should provide a valid basis for grievances the grade.

If the instructor agrees at this point to make a grade change, a Change of Grade form must be completed by the instructor, approved by the appropriate Academic Dean, and submitted to the Associate Dean of Student and Academic Support Services.

If the instructor determines the grade should remain unchanged, and the student believes there is valid justification for a grade grievance, the student should contact the appropriate Academic Administrator. This would typically be the Dean having responsibility for the course in which the disputed grade occurred. The Academic Administrator shall arrange an informal conference with the instructor and the student for purposes of resolving the conflict.

If, after such a conference, the student still believes there is valid justification for a grade grievance, the student must write a formal letter of grievance to the Vice President of Academic Services fully explaining the rationale for the grievance along with all relevant information pertaining to the matter. Upon receipt of the letter from the student, the Vice President of Academic Services will review the facts presented and make a determination of whether the case warrants a formal hearing. This step of the procedure may include a conference between the student and the Vice President of Academic Services. If the Vice President determines there is no valid justification for the grievance, he/she will inform the student that the grade issued will stand unchanged. If the Vice President determines there is valid justification for the grievance, he/she will call the Grade Review Committee into session. This committee is composed of three faculty members, the Executive Dean of Student Services or his/her representative, and the appropriate Academic Administrator. The Vice President of Academic Services shall chair the committee and appoint a recording secretary.

The grievance session shall be informal in nature with all the relevant facts being presented by the instructor and the student. After presentation of the 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...
of Academic Services shall review the details of the grade griev-
ance 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 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.

**ACADEMIC PROBATION
AND DISMISSAL POLICY**

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

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

Students who are on Academic Probation will be required to
see their Academic Advisor for assistance and must follow the
prescribed procedure(s) prepared by their Academic Advisor.

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 (not counting spring/
summer semesters) or until such time as they demonstrate
a willingness to participate in activities that are designed to
improve their academic records.

**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.

**MMCC POLICY ON ACADEMIC DISHONESTY AND
PLAGIARISM**

Academic Dishonesty: includes, but is not limited to:

1. use of any unauthorized assistance in taking quizzes,
tests, or examinations;
2. use of resources beyond those authorized by the instruc-
tor in writing papers, preparing reports, solving prob-
lems, or carrying out other assignments;
3. the acquisition, without permission, of tests or other aca-
demic material belonging to a member of the College
faculty or staff;
4. engaging in any behavior specifically prohibited by a fac-
ulty member in the course syllabus or class discussion.

Plagiarism: Plagiarism is using another’s ideas as one’s own.
Plagiarism has two forms, unintentional and intentional. Un-
intentional plagiarism is usually the result of students being
unfamiliar with the academic conventions of citation and
documentation. Intentional plagiarism is the result of students
knowingly submitting the work of others as their own. This
includes, but is not limited to, use, by paraphrase or direct
quotation, of the published or unpublished work of another
person without full and clear acknowledgment. It also includes
the unacknowledged use of materials prepared by another
person or agency engaged in the selling of term papers or
other academic materials.
All acts of plagiarism and academic dishonesty will first be dealt with by the instructor. Penalties may range from revision to failing the assignment or the course. Instructors must report all acts of intentional dishonesty or plagiarism, or any penalty resulting in a failure of the course, to the Associate Dean of Student and Academic Support Services. Repeated violations may result in further discipline, up to and including dismissal.

Students may appeal any grade affected by a charge of academic dishonesty or plagiarism through the Grade Grievance Procedure.

**ACADEMIC AMNESTY**

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

**GRADUATION REQUIREMENTS**

Graduation requirements for a certificate or associate degree are based on the regulations and requirements printed in the Mid Michigan Community College catalog in effect at the time of a student’s initial registration. A catalog published after initial registration may be chosen by the student when it is to his or her advantage, provided that the student has attended at least 1 semester per academic year. If a student stops out for a period of one year or more, the student will need to follow the catalog in effect at the time they reenter the college. For students with continual enrollment, there is a seven year time limitation on the use of a selected catalog; the time limitation on this is so that no student may graduate under the requirements of a catalog published more than seven calendar years prior to the date of graduation.

Graduation requirements for certificate or associate degrees in limited seat programs are based on the regulations and requirements printed in the MMCC catalog in effect at the time the student is officially accepted into the program of study and is in effect for two years from that date. This time line is in effect because of the rapidly changing requirements in these specialized programs for job placement. Candidates for degrees or certificates must meet all of the following requirements to be eligible for graduation:

1. Apply for graduation prior to registration for your last semester. Students should apply by October 1 for Winter graduation (May) and March 1 for Spring/Summer/Fall graduation. Only students applying for Associate Degrees or Certificates of Achievement can participate in Commencement.
2. Earn a minimum of 15 credit hours at MMCC for an Associate’s Degree and 6 credits for a Certificate of Achievement or Training Credential.
3. Complete the number of credit hours required for each degree. A minimum of 62 is required for an Associate’s Degree and 31 for a Certificate of Achievement.
4. Maintain a 2.0 GPA or higher. Some programs require students to get a minimum grades in many or all of their courses. Students are expected to be aware of program specific grade requirements.
5. Courses numbered below 100 do not count toward graduation.
6. For each additional Associate Degree, a student must take an additional 12 credits at MMCC. For each additional Certificate of Achievement, a student must take an additional 6 credits at MMCC.
7. If a student has taken classes from another college, the transcript must be received by MMCC within six weeks after the scheduled gradation date in order to allow the student to graduate in said semester.

MMCC reserves the right to make changes in academic programs, graduation requirements, or grading policy at any time.

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 3.500 through 3.899 to graduate with Honors and cumulative GPA of 3.900 through 4.000 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.

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. This form should be completed by the student in consultation with an academic advisor, or with a faculty member from the program that would be accepting the substituted course. A clear rationale for the substitution must be provided. This substitution must then be approved by the Instructional Dean, and by the Registrar. 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.

The Bookstore sells many office supply items such as pens, pencils, folders, paper, computer flash drives and calculators. Backpacks and specialty book totes are stocked year-round. Many snack items including candy, chips, gum, and pop are available at both campus bookstores.

The Mt. Pleasant Bookstore features a concession area that includes coffee, specialty drinks, beverages, snacks and many food items. The Bookstore’s web site is www.bookstore.michigan.edu. Information regarding hours of operation, textbook info and bookstore announcements can be found on this website. You may also call 989-386-6640 to reach the Harrison Bookstore or 989-317-4620 to reach the Mt. Pleasant Bookstore.

BOOKS & BEANS ESPRESSO CAFÉ

Books & Beans Espresso Café is located at the Harrison Campus on the first floor. Coffee, specialty drinks, iced smoothie drinks, bottled soft drinks, juices and waters are available. Also available are quick snacks including: fresh baked pizza slices, homemade sandwiches, muffins, bagels and yogurt. Hours of operation are posted at Books & Beans.

COMPUTER LABORATORIES

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

LIBRARY (LLS)

The Charles A. Amble Library/Media Center at Mid Michigan Community College provides services that are designed to meet the academic, general and technical needs for students, faculty, and administration at MMCC. In addition to serving the college’s academic community, the library is proud to offer information services and programs to members of the general public as well.

The Harrison campus library contains a collection of informational material. All of the information that is housed in the library is cataloged under the Library of Congress Classification System. Other resource holdings include a collection of numerous periodicals and newspaper subscriptions, along with an audio and video collection that is approaching 2,000 titles.

The library staff at both campus locations can provide upon request, bibliographic instruction, library tours, and research tutorials for instructional purposes. In addition to this, staff members strive to satisfy any other informational needs for members of our academic and non-academic community.

Both campus library locations provide the most up to date technology and services. Some of the technical services include, free wireless internet, check-out laptops for both in house and take-home use, viewing facilities for students who need to watch a DVD for course related purposes, and desktop computers for both student and community member use.

In order to meet the research needs of our student population, an array of online academic databases are available. Some of the academic databases that can be found at both campus locations are JSTOR, ProQuest, Ebsco, ECO, The Gale Reference Library, Info Trac, and MEDLINE. Other online services include...
the Oxford Dictionary Online, The Routledge Encyclopedia Online, online tutorials for all of the academic styles of writing, tutorials on how to effectively avoid plagiarism, and interactive research tutorials.

MMCC’s Charles A. Amble Library is a member of the Michigan Electronic Library (MEL) and the Valley Library Consortium. These partnerships give both students and community members InterLibrary Loan (ILL) access to the majority of college, university, and public libraries around the state of Michigan. This computerized resource sharing system allows users to navigate the databases of over 1 million items held by these various libraries by author, title, subject and keyword searches. All of MMCC’s ILL and online services are available for on or off campus users. (Note: off campus access is restricted to library card holders).

Hours for the Harrison campus library location 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., during the academic year. Library hours between academic sessions and summer are 8:00 a.m. until 4:30 p.m. Monday through Friday. Hours for the Mt. Pleasant library service desk are Monday through Friday 8:00 a.m. until 4:30 p.m.

CONTINUING EDUCATION NON-CREDIT COURSES

In an effort to meet special interests and needs of the non-academic and academic community, MMCC provides an array of continuing education classes, lectures, and special events. Courses and events falling under the following major headings – professional development and personal interest are offered each enrollment period at both campus locations.

LEARNING SERVICES (LLS)

The Library Learning Services (LLS) is available to all MMCC students for a host of success-oriented services. LLS classes give students the option of taking entry-level Math and English in a more personalized and collaborative environment. In addition, if students are having difficulty in a class, they may take advantage of our additional support services. LLS writing and reading assistance is designed to help students with their writing and reading needs in any class. Whatever stage of the writing process a student may be at (ideas, drafts, finals), he/she may set up an appointment for consultation. Students can also get help with academic and textbook reading.

Any MMCC student may use all Math Lab services, multimedia, and self-instructional materials, even if he/she is not enrolled in an LLS Math course. Videotapes with lectures are available for Math 101, 104, and 105. They may be viewed in the lab or at home. Also, students from any math class may go to the lab for assistance with assignments from lecture classes; simply bring an assignment and textbook for help.

Peer tutoring and Supplemental Instruction (free services to students) are also set up through the The Library Learning Services. If students are falling behind in their course work, they are encouraged to talk to their instructors first. Instructors are usually very eager to help students. At peak times, tutoring is provided on a first-come/first-serve basis, but our goal is to provide assistance to all students needing help. If we cannot provide you with a tutor, please talk to the LLS staff for other types of assistance.

In addition to these services, the The Library Learning Services is also the testing center for assessment testing, make-up and Internet classes, Credit by Exam classes, and the media site for research.

ASSESSMENT

Mid Michigan Community College uses Accuplacer as an Advising tool. Accuplacer 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.

Students must complete Placement Testing if they are seeking any MMCC degree, certificate, or training credential. The only individuals who would not have to complete Placement Testing are those who have successfully completed Mathematics and English Composition at other institutions or who have taken the ACT within the past 3 years and attained a score of 21 or higher for Reading and Math. Walk-in testing may be available, but it is preferable to schedule an appointment for testing.

ACCESS TO CAMPUS FACILITIES

The College will post its official hours for its buildings each enrollment period. Students and non-College employees shall have access to the building only during these hours, unless an approved (by the Vice President of Finance and Administrative Services or his/her designee) written exception is in effect.

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

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.

HOUSING

Mid Michigan Community College does not maintain housing for students on the campus.

STUDENT ACTIVITIES

STUDENT IDENTIFICATION CARDS

Student ID cards are issued for students who are registered for any MMCC class. Your original ID card is free but you can get a replacement card for only $5.

MMCC LAKER ATHLETICS

The Mid Michigan Community College Lakers are part of the National Junior College Athletic Association (NJCAA) as a Di-
vision II community college. As a DII college, the Lakers can offer athletic scholarships. The program offers an opportunity to compete after high school. A number of students have even transferred on to play at colleges and universities after playing for the Lakers.

Funded by the student activity fee and fundraising events, the MMCC Lakers made their debut with a men’s soccer team in Fall 2008. Today, the Lakers have men’s and women’s basketball teams that play home games at Morey Courts in Mt. Pleasant, a men’s and women’s cross country team and a bowling team. Visit www.midmich.edu/athletics for more information.

STUDENT CLUBS

MMCC has a number of recognized student clubs that allow students to gather together, share experiences, and connect with their peers. All student clubs have MMCC advisors that help them organize and grow. Clubs can be formed around almost any topic and the student activity fee can even help with initial funding for the club. For more information, visit www.midmich.edu/studentlife.

MID’S CAMPUS COUNCIL (MC²)

MC² functions as an advisory body to provide activities and services to students of the college. It is also the student council and programming board of MMCC. The council is composed of an executive board and any student who wishes to participate is eligible to attend. The Board strives to offer student activities that meet a variety of interests. It also funds and supports student groups and athletics. Students and groups may present proposals requesting funding or council support for activities on campus. All proposals will be reviewed and voted on by the council. Students interested in being elected to MC² should contact the advisor at 989-386-6634 or a council member. Elections take place yearly or as needed to fill vacancies.

PHI THETA KAPPA INTERNATIONAL HONOR SOCIETY ALPHA OMICRON OMICRON CHAPTER

Phi Theta Kappa is the international honor society of the two-year college. 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 2.5 million members have been inducted at 1,275 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 and have a GPA of 3.5 or better.

Involvement with Mid’s Phi Theta Kappa 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 Phi Theta Kappa chapter is extremely active and is committed to the society’s four Hallmarks: Scholarship, Leadership, Service and Fellowship, and to serving the college and surrounding communities.

CAMPUS CRIME STATISTICS, PREVENTION, AND AWARENESS

Mid Michigan Community College 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.

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.

You can find MMCC’s full Security Report at www.midmich.edu/securityreport.

CAMPUS LAW ENFORCEMENT

Campus law enforcement is provided by STT Security.

CRIME REPORTING AND EMERGENCY PROCEDURES

If you are a victim of a crime or suspect a crime, notify the campus security officer located in room 252 on the Harrison Campus or the cashier’s Office across from the Bookstore. If
they are not available call 989-339-4204 (Harrison Campus), 989-339-7323 (Herbert D. Doan Center), or call the local police department at 989-539-7166 (Clare County) or 989-773-1000 (Isabella County).

**DISCIPLINARY ACTION**

Mid Michigan Community College abides by all Local, State, and Federal laws and will ask an appropriate agency to impose any necessary sanctions should a violation occur. Students are expected to respect the laws governing the community, as well as the MMCC rules and regulations governing student conduct as set forth in this catalog and other policy manuals. All rules and regulations apply on all College property and at all College sponsored events.

**ALCOHOL AND OTHER DRUG POLICY**

Mid Michigan Community College is committed to providing a safe and healthy learning environment and as such, recognizes that improper or excessive use of alcohol and other drugs may disrupt the learning community by negatively impacting the health and safety of our students, faculty and staff. Problems such as memory loss, harassment, sexual misconduct, assaults, disorderly/disruptive behavior, and sleep disruption tend to increase in correlation to the misuse of alcohol and/or other drugs. Due to the harm produced by excessive and illegal use, Mid Michigan Community has established policies and sanctions to prohibit unlawful behaviors and address policy violations by members of the MMCC Community.

Mid Michigan Community prohibits the possession, use, distribution, and unlawful manufacture of illegal drugs, narcotics or controlled substances on MMCC’s campuses. Alcohol is prohibited on campus except when a written Exception Request is submitted for consideration and is approved by MMCC’s Board of Trustees. It is the responsibility of each student, faculty, and staff member to be familiar with the provisions of the policy and also the State of Michigan laws as they pertain to alcohol and drug use and abuse. The College's Alcohol and Other Drug Policy places responsibility for individual and group conduct on the individuals who use drugs and consume alcohol. Using drugs and drinking alcoholic beverages are not excuses for irresponsible behavior. Individuals and groups are held accountable for their behavior whether or not they have consumed drugs or alcohol.

Michigan law prohibits the dispensing, selling or supplying of drugs or alcohol to any person under the age of 21. Students, faculty, staff and visitors to the College may not unlawfully manufacture, consume, possess, sell, distribute, transfer or be under the influence of alcohol, illicit drugs, or a controlled substance on College property, at College-related events, while driving a College vehicle or while otherwise engaged in College business. College property includes all buildings and land owned, leased, or used by the College; motor vehicles operated by employees, including personal motor vehicles when used in connection with work performance on behalf of the College.

Any person taking prescription drugs or over-the-counter medication is individually responsible for ensuring that while taking the drug or medication, he/she is not a safety risk to themselves or others while on College property, at College-related events, while driving a College or privately owned vehicle while engaged in College business. It is illegal to misuse prescribed drugs contrary to the prescription; give or sell the prescribed drug(s) to another person.

In accordance with the Drug-Free Workplace Act and Drug-Free Schools and Campuses Act, Mid Michigan Community College is required to have an alcohol and other drug policy which is distributed annually to all students, faculty and staff. A full copy of the policy can be found at: www.midmich.edu/alcoholandotherdrug. MMCC is also required to conduct a Biennial Review of our Alcohol and Other Drug programs to determine effectiveness and the consistency of enforcement of sanctions, along with the number of alcohol and drug related violations that were reported to campus officials and the types of sanctions issued. To review the most recent Biennial Review please visit: Biennial Review

**SMOKE, TOBACCO, AND E-CIGARETTE POLICY**

To promote the health and well-being of its students, faculty, and staff and reduce involuntary exposure to secondhand smoke, Smoking and/or the use of any tobacco products, vapor or e-cigarettes is prohibited within or outside of all facilities, vehicles, and grounds that are owned, leased or operated by Mid Michigan Community College. No designated areas will be provided by the college for smoking or the use of tobacco products, vapor or e-cigarettes. Students, faculty, staff and visitors may continue to smoke and/or use tobacco products, vapor e-cigarettes in their personal vehicles when attending class, working, or visiting any MMCC campus location.

**STUDENT COMPLAINT PROCESS**

Mid Michigan Community College is committed to assisting student through their educational journey. While we strive to provide students with the best service possible, we recognize that from time to time students may encounter issues that need to be addressed. We encourage students to discuss concerns/complaints with the appropriate MMCC personnel. We cannot improve our processes or facilitate a solution if we are not aware of issues. No retaliation of any kind shall be taken against a student for participation in a complaint or a grievance.

Listed below are Offices and contact numbers, should you have concerns:

**Office of Student Oversight**
Harrison (989) 386-6622, Ext. 394
Mt. Pleasant (989) 773-6622, Ext. 548
If you have a complaint or concern regarding an instructor, it is recommended that you discuss the issue with the instructor. If you do not feel comfortable discussing the issue with the instructor or this is not an option, please complete an Instructor Concern form.

You are encouraged to contact the Office of Student Oversight (listed above) or complete an online concern form at www.midmich.edu/incidentreport for any of the following issues: if you have been a victim of or witness to any incident of discrimination, harassment, sexual misconduct, violations to the Student Code of Conduct, academic dishonesty, behavioral or wellness issues/concerns.

STUDENT RIGHT TO KNOW

Although pertinent student information is located throughout this catalog and the MMCC website, the Student Right to Know page offers an easy way to access information and materials that will afford students the opportunity to make fully informed choices regarding MMCC. The Student Right to Know page is located at www.midmich.edu/righttoknow and is in accordance with the Student Right to Know Act of 1990, which requires colleges and universities that receive federal Title IV funds to disclose certain information to prospective and enrolled students, parents, and employees.

By providing this information in one location, our objective is to make this site as resourceful and efficient as possible. Students are encouraged to become familiar with the information housed on the Student Right to Know page. The provided information will assist students in making the best possible choices for their educational journey.

STUDENT CODE OF CONDUCT

PREAMBLE

MMCC Mission: 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.

As a member of this academic community, each student enjoys the right to learn. Mid Michigan Community College has a duty to promote this 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 required to engage in responsible social conduct and to model good citizenship in any community. Students are expected to act in a responsible manner that promotes the environment for learning. 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.

ARTICLE I: DEFINITIONS

The term College means Mid Michigan Community College.

The term “student” includes all persons taking courses at the College, either full-time or part-time, taking courses either for credit or not for credit. The term also includes persons who withdraw after allegedly violating the Student Code, who are not officially enrolled for a particular term but who have a continuing relationship with the College or who have been notified of their acceptance for admission, even though they are not enrolled in this institution. This Student Code applies at all locations of the College, and to off-campus locations related to College activities including, but not limited to, internships, study abroad courses, athletic events, etc.

The term “faculty member” means any person hired by the College to conduct classroom or teaching activities. The term also includes persons who withdraw after allegedly violating the Student Code, who are not officially enrolled for a particular term but who have a continuing relationship with the College or who have been notified of their acceptance for admission, even though they are not enrolled in this institution. This Student Code applies at all locations of the College, and to off-campus locations related to College activities including, but not limited to, internships, study abroad courses, athletic events, etc.

The term “member of the College community” includes anyone who is a student, faculty member, College official or any other person employed by the College.

The term “College premises” includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the College (including adjacent streets and sidewalks).
The term “organization” means any number of students/student groups who have complied with the formal requirements for College recognition/registration.

The term “Student Oversight Committee” means any person or persons authorized by the Executive Dean of Student and Academic Support Services to determine whether a student has violated the Student Code and to recommend sanctions that may be imposed when a rules violation has been committed.

The term “Disciplinary Records” means documentation of any student’s code violations, assessed sanctions, and completion of said sanctions. Disciplinary records are maintained separately from the student’s academic record but are part of the student’s overall educational record.

The Executive Dean of Student and Academic Support Services is that person designated by the College President to be responsible for the administration of the Student Code. The Executive Dean of Student and Academic Support Services is . . .

• Authorized on a case-by-case basis to impose sanctions upon any student(s) found to have violated the Student Code.

• Selects the members of the Student Oversight Committee and the Appeals Board.

• Authorizes designated College officials to impose sanctions in all cases.

The term “Appellate Board” means any person or persons authorized by the Executive Dean of Student and Academic Support Services to consider an appeal of a decision by the Student Oversight Committee.

The term “shall” is used in the imperative sense.

The term “may” is used in the permissive sense.

The term “policy” means the written regulations of the College as found in, but not limited to, the Student Code, the College’s Title IX Policy, the Non-Discrimination Policy, the College web page and computer use policy, and the College Catalog.

The term “Academic Dishonesty” includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) use of resources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) the acquisition, without permission, of tests or other academic material belonging to a member of the College faculty or staff (4) engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.

The term “plagiarism” includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

The term “Complainant” means any person who submits a charge alleging that a student violated this Student Code. When a student believes that s/he has been a victim of another student’s misconduct, the student who believes s/he has been a victim will have the same rights under this Student Code as are provided to the Complainant, even if another member of the College community submitted the charge itself.

The term “Accused Student” means any student accused of violating this Student Code.

ARTICLE II: STUDENT CODE AUTHORITY

The Executive Dean of Student and Academic Support Services shall determine the composition of the Student Oversight Committee and the Appellate Board and determine which group or College official shall be authorized to hear each matter.

The Executive Dean of Student and Academic Support Services shall develop policies for the administration of the student conduct system and procedural rules for the conduct of Student Oversight Committee Hearings that are consistent with provisions of the Student Code of Conduct and that work in concert with the policies of the Board of Trustees.

Decisions made by the Student Oversight Committee and/or Executive Dean of Student and Academic Support Services shall be final, pending the appeal process as described in this Student Code of Conduct.

ARTICLE III: PROSCRIBED CONDUCT

A. Jurisdiction of the College Student Code

The College Student Code shall apply to conduct that occurs on College premises, at College sponsored activities, and to off-campus conduct that adversely affects the College Community and/or the pursuit of its objectives. Each student shall be responsible for his/her conduct from the time of application for admission through the actual awarding of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment (and even if their conduct is not discovered until after a degree is awarded). The Student Code shall apply to a student’s conduct even if the student withdraws from school while a disciplinary matter is pending. The Executive Dean of Student and Academic Support Services shall decide whether the Student Code shall be applied to conduct occurring off campus, on a case by case basis, in his/her sole discretion.

B. Conduct—Rules and Regulations
Any student found to have committed or to have attempted to commit the following misconduct is subject to the disciplinary sanctions outlined in Article IV:

1. Acts of dishonesty, including but not limited to the following:
   - Cheating, plagiarism, or other forms of academic dishonesty.
   - Furnishing false information to any College official, faculty member, or office.
   - Forgery, alteration, or misuse of any College document, record, or instrument of identification.

2. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other College activities, including its public service functions on or off campus, or of other authorized non-College activities when the conduct occurs on College premises.

3. Physical abuse, verbal abuse, bullying, threats, stalking, intimidation, harassment, coercion, and/or other conduct which threatens or endangers the health or safety of any person.

4. Any sexual harassment or sexual misconduct or any other violation of the College's Title IX policy.

5. Attempted or actual theft of and/or damage to property of the College or property of a member of the College community or other personal or public property, on or off campus.

6. Hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, a group or organization. The express or implied consent of the victim will not be a defense. Apathy or acquiescence in the presence of hazing are not neutral acts; they are violations of this rule.

7. Failure to comply with directions of College officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.

8. Unauthorized possession, duplication or use of keys to any College premises or unauthorized entry to or use of College premises.

9. Violation of any College policy, rule, or regulation published in hard copy or available electronically on the College website.

10. Violation of the MMCC Smoking and Tobacco Use Policy, which states: To promote the health and well-being of its students, faculty and staff, and reduce involuntary exposure to second hand smoke, the College has established a smoke and tobacco free environment. Smoking and/or the use of any tobacco product is prohibited within or outside of all facilities, vehicles, and grounds owned, leased or operated by Mid Michigan Community College. No designated areas will be provided by the college for smoking or the use of tobacco products. Staff and visitors may continue to smoke and/or use tobacco products in their personal vehicles when working or visiting any MMCC campus location.

11. Violation of any federal, state or local law.

12. Use, possession, manufacturing, or distribution of marijuana, heroin, narcotics, or other controlled substances except as expressly permitted by law.

13. Use, possession, manufacturing, or distribution of alcoholic beverages (except as expressly permitted by College regulations), or public intoxication. Alcoholic beverages may not, in any circumstance, be used by, possessed by or distributed to any person under twenty-one (21) years of age. Behavior must also comply with provisions of the College's Substance Abuse Policy.

14. Possession of firearms, explosives, other weapons, or dangerous chemicals on College premises or use of any such item, even if legally possessed, in a manner that harms, threatens or causes fear to others.

15. Participating in an on-campus or off-campus demonstration, riot or activity that disrupts the normal operations of the College and/or infringes on the rights of other members of the College community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area.

16. Obstruction of the free flow of pedestrian or vehicular traffic on College premises or at College sponsored or supervised functions.

17. Conduct that is disorderly, lewd, or indecent; breach of peace; or aiding, abetting, or procuring another person to breach the peace on College premises or at functions sponsored by, or participated in by, the College or members of the academic community. Disorderly Conduct includes but is not limited to: Any unauthorized use of electronic or other devices to make an audio or video record of any person while on College premises without his/her prior knowledge, or without his/her effective consent when such a recording is likely to cause injury or distress. This includes, but is not limited to, surreptitiously taking pictures of another person in a gym, locker room, or restroom.

18. Theft or other abuse of computer facilities and resources, including but not limited to:
   - Unauthorized entry into a file, to use, read,
or change the contents, or for any other purpose.

- Unauthorized transfer of a file.
- Use of another individual's identification and/or password.
- Use of computing facilities and resources to interfere with the work of another student, faculty member or College Official.
- Use of computing facilities and resources to send obscene or abusive messages.
- Use of computing facilities and resources to interfere with normal operation of the College computing system.
- Use of computing facilities and resources in violation of copyright laws.
- Any violation of the College Computer Use Policy.

19. Abuse of the Student Conduct System, including but not limited to:

- Failure to obey the notice from a Student Oversight Committee or College official to appear for a meeting or hearing as part of the Student Conduct System.
- Falsification, distortion, or misrepresentation of information before the Student Oversight Committee.
- Disruption or interference with the orderly conduct of the Student Oversight Committee proceeding.
- Initiation of a student conduct code proceeding in bad faith.
- Attempting to discourage an individual's proper participation in, or use of, the Student Conduct System.
- Attempting to influence the impartiality of a member of a Student Oversight Committee prior to, and/or during the course of, the Student Oversight Committee proceeding.
- Harassment (verbal or physical) and/or intimidation of a member of the Student Oversight Committee prior to, during and or after a student conduct code proceeding.
- Failure to comply with the sanction(s) imposed under the Student Code.
- Influencing or attempting to influence another person to commit an abuse of the Student Conduct System.

20. Children on Campus Policy

The college environment is not well suited to the presence of young children; generally, bringing children to campus shall be discouraged. However, should circumstances arise that a child must be brought to campus the following expectations will hold:

- Children must be with a responsible adult (parent/guardian), which means at the adult's side.
- Children are not permitted in classrooms.
- Children must remain quiet, controlled, and non-disruptive.

Failure to comply with the above may result in a directive for the adult and the child to leave campus; further incidents may result in further disciplinary action against the adult student.

C. Violation of Law and College Discipline

College disciplinary proceedings may be instituted against a student charged with conduct that potentially violates both the criminal law and this Student Code (that is, if both possible violations result from the same factual situation) without regard to the pendency of civil or criminal litigation in court or criminal arrest and prosecution. Proceedings under this Student Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus at the discretion of Executive Dean of Student and Academic Support Services. Determinations made or sanctions imposed under this Student Code shall not be subject to change because criminal charges arising out of the same facts giving rise to violation of College rules were dismissed, reduced, or resolved in favor of or against the criminal law defendant.

When a student is charged by federal, state, or local authorities with a violation of law, the College will not request or agree to special consideration for that individual because of his or her status as a student. If the alleged offense is also being processed under the Student Code, the College may advise off-campus authorities of the existence of the Student Code and of how such matters are typically handled within the College community. The College will attempt to cooperate with law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators (provided that the conditions do not conflict with campus rules or sanctions). Individual students and other members of the College community, acting in their personal capacities, remain free to interact with governmental representatives as they deem appropriate.

ARTICLE IV: STUDENT CONDUCT CODE PROCEDURES

A. Charges and Student Oversight Committee Hearings

1. Any member of the College community may file
A complaint against a student for violations of the Student Code. A complaint shall be submitted through the online reporting system (Maxient) or prepared in writing and directed to the Student Oversight Committee. Any complaint should be submitted as soon as possible after the event takes place.

2. The Executive Dean of Student and Academic Support Services may conduct an investigation to determine if the complaints have merit and/or if they can be disposed of administratively by mutual consent of the parties involved on a basis acceptable to the Executive Dean of Student and Academic Support Services. Such disposition shall be final and there shall be no subsequent proceedings. If the complaints are not admitted and/or cannot be disposed of by mutual consent, the Executive Dean of Student and Academic Support Services may later serve in the same matter as the Student Oversight Committee or a member thereof. If the student admits violating the Student Code, but sanctions are not agreed to, subsequent process, including a hearing if necessary, shall be limited to determining the appropriate sanction(s).

3. All complaints shall be presented to the Accused Student in written form. A time shall be set for a Student Oversight Committee Hearing, within fifteen calendar days after the student has been notified. Maximum time limits for scheduling of Student Oversight Committee Hearings may be extended at the discretion of the Executive Dean of Student and Academic Support Services.

4. Student Oversight Committee Hearings shall be conducted by the Student Oversight Committee according to the following guidelines except as provided by article IV(A)(7) below:

   a. Student Oversight Committee Hearings normally shall be conducted in private.

   b. The Complainant, Accused Student and their advisors, if any, shall be allowed to attend the entire portion of the Student Oversight Committee Hearing at which information is received (excluding deliberations). Admission of any other person to the Student Oversight Committee Hearing shall be at the discretion of the Student Oversight Committee and/or the Executive Dean of Student and Academic Support Services.

   c. In Student Oversight Committee Hearings involving more than one Accused Student, the Executive Dean of Student and Academic Support Services, in his or her discretion, may permit the Student Oversight Committee Hearings concerning each student to be conducted either separately or jointly.

   d. The hearing is entirely administrative in nature and is not considered a legal proceeding. All parties involved in the complaint have the right to an advocate, which could be a member of the college community (student, faculty member, academic advisor, or other staff member). Legal counsel may be present (at the expense of the individual parties) at the hearing on behalf of either party. Such counsel may privately consult with and advise the parties during the proceeding but may not examine witnesses or otherwise directly participate on behalf of either party. No audio or video recording will take place. Anyone disrupting the hearing may be removed. The complainant, respondent, and witnesses will be questioned separately by the Hearing Board and will not be allowed the opportunity to cross examine other parties. All parties have a right to be heard and to present evidence (including witnesses); however, if any party chooses to have an advocate or invite witnesses, notice must be provided to the SOC office no later than two business days prior to the hearing. The college will maintain documentation of all hearing proceedings.

   e. The Complainant, the Accused Student and the Student Oversight Committee may arrange for witnesses to present pertinent information to the Student Oversight Committee. The Complainant and/or Accused Student must identify possible witnesses during the initial investigation; the College will try to arrange the attendance of possible witnesses who are members of the College community. Witnesses will provide information to and answer questions from the Student Oversight Committee. The Student Oversight Committee may consider suggested questions from the Accused Student and/or the Complainant; however, the Committee does not obligate itself to use any such questions. In the event that suggested questions are used, such questions shall be directed to the chairperson, rather than to the witness directly. This method is used to preserve the educational tone of the hearing and to avoid creation of an adversarial environment. Questions of whether potential information will be received shall be resolved at the discretion of the chairperson of the Student Oversight Committee.

   f. Pertinent records, exhibits, and statements may be accepted as information
for consideration by the Student Oversight Committee at the discretion of the chairperson.

g. All procedural questions are subject to the final decision of the chairperson of the Student Oversight Committee.

h. After the portion of the Student Oversight Committee Hearing concludes in which all pertinent information has been received, the Student Oversight Committee shall determine (by majority vote if the Student Oversight Committee consists of more than one person) whether the Accused Student has violated each section of the Student Code which the student is accused of violating.

i. The Student Oversight Committee's determination shall be made on the basis of whether it is more likely than not that the Accused Student violated the Student Code.

j. Formal rules of process, procedure, and/or technical rules of evidence, such as are applied in criminal or civil court, are not used in Student Code proceedings.

5. There shall be a single verbatim record, such as an audio recording, of all Hearings before the Student Oversight Committee (not including deliberations). Deliberations shall not be recorded. The record shall be the property of the College.

6. If an Accused Student, with notice, does not appear before the Student Oversight Committee Hearing, the information in support of the charges shall be presented and considered.

7. The Student Oversight Committee may accommodate concerns for the personal safety, well being, and/or fears of confrontation of the Complainant, Accused Student, and/or other witnesses during the hearing by providing alternative methods of communications, where and as determined in the sole judgment of the Executive Dean of Student and Academic Support Services to be appropriate.

B. Sanctions

1. The following sanctions may be imposed upon any student found to have violated the Student Code:

   a. Warning—A notice in writing to the student that the student is violating or has violated institutional regulations.

   b. No Contact – A notice that a student or students are not to approach each other, speak to each other, contact using phone, email, text, social media, or third party individuals. Violation of the No Contact order can result in further sanctions.

   c. Probation—A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any institutional regulation(s) during the probationary period.

   d. Loss of Privileges—Denial of specified privileges for a designated period of time.

   e. Fines—previously established and published fines may be imposed.

   f. Restitution—Compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary or material replacement.

   g. Referral/Assessment – Students may be required to arrange external assessment, counseling or treatment programs and to release results to the College. Continued enrollment may be dependent on the results of such referrals.

   h. Contract – A student may be required to refrain from (or to perform) specific activities; continued enrollment may be dependent on reports of success in meeting the stated criteria.

   i. Discretionary Sanctions—Work assignments, essays, service to the College, or other related discretionary assignments. For academic matters such as plagiarism or academic dishonesty, sanctions may include, but are not limited to, failure of the course, failure of the assignment, or resubmission of work.

   j. Suspension—Separation of the student from the College for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.

   k. Expulsion—Permanent separation of the student from the College.

   l. Revocation of Admission and/or Degree—Admission to or a degree awarded from the College may be revoked for fraud, misrepresentation, or other violation of College standards in obtaining the degree, or for other serious violations committed by a student prior to graduation.

   m. Withholding Degree or Transcript —The
College may withhold awarding a degree otherwise earned or fulfilling a request for a transcript until the completion of the process set forth in this Student Conduct Code, including the completion of all sanctions imposed, if any.

n. Immediate Removal from Classroom -- If misconduct warrants an immediate removal from the class for the remainder of the class period, the instructor may do so without a prior hearing. If the student resists, the instructor may ask for assistance from campus security or contact law enforcement by calling 911. The instructor shall, as soon as practical, provide written certification to the Dean of Student and Academic Support Services and/or the Associate Dean of Student and Academic Support Services that the student has violated any college policies, rules, or regulations and has refused to leave the classroom.

More than one of the sanctions listed above may be imposed for any single violation.

(i) Other than College expulsion or revocation or withholding of a degree, disciplinary sanctions shall not be made part of the student’s permanent academic record, but shall become part of the student’s disciplinary record. The student’s disciplinary record may be expunged of disciplinary actions other than suspension, expulsion, or revocation or withholding of a degree, upon application to— and approval by— the Executive Dean of Student and Academic Support Services

(ii) In situations involving both an Accused Student(s) (or group or organization) and a student(s) claiming to be the victim of another student’s conduct, the records of the process and of the sanctions imposed, if any, shall be considered to be the education records of both the Accused Student(s) and the student(s) claiming to be the victim because the educational career and chances of success in the academic community of each may be impacted.

2. The following sanctions may be imposed upon groups or organizations:
   a. Those sanctions listed above.
   b. Loss of selected rights and privileges for a specified period of time.
   c. Deactivation. Loss of all privileges, including College recognition, for a specified period of time, including permanently.

3. In each case in which the Student Oversight Committee determines that a student and/or group or organization has violated the Student Code, the sanction(s) shall be determined and imposed by the Executive Dean of Student and Academic Support Services. In cases in which persons other than, or in addition to, the Executive Dean of Student and Academic Support Services have been authorized to serve as the Student Oversight Committee, the recommendation of the Student Oversight Committee shall be considered by the Executive Dean of Student and Academic Support Services in determining and imposing sanctions. The Executive Dean of Student and Academic Support Services is not limited to sanctions recommended by members of the Student Oversight Committee. Following the Student Oversight Committee Hearing, the Student Oversight Committee and the Executive Dean of Student and Academic Support Services shall advise the Accused Student, group and/or organization (and a complaining student who believes s/he was the victim of another student’s conduct) in writing of its determination and of the sanction(s) imposed, if any.

C. Interim Suspension

In certain circumstances, the Executive Dean of Student and Academic Support Services, or a designee, may impose a College suspension prior to the Student Oversight Committee Hearing.

Interim suspension may be imposed when the Executive Dean determines such suspension is necessary:

1) to ensure the safety and well-being of members of the College community or preservation of College property;
2) to ensure the student’s own physical or emotional safety and well-being; or
3) if the student poses an ongoing threat of disruption of, or interference with, the normal operations of the College.

   a. The student should be notified in writing of this action and the reasons for the suspension. The notice should include the time, date, and place of a subsequent hearing at which the student may show cause why his or her continued presence on the campus does not constitute a threat.

During the interim suspension, a student shall be denied access to the campus (including classes) and/or all other College activities or privileges for which the student might otherwise be eligible, as the Executive Dean of Student and Academic Support Services may determine
to be appropriate.

The interim suspension does not replace the regular process, which shall proceed on the normal schedule, up to and through a Student Oversight Committee Hearing, if required.

D. Appeals

1. A decision reached by the Student Oversight Committee or a sanction imposed by the Executive Dean of Student and Academic Support Services may be appealed by the Accused Student(s) or Complainant(s) to an Appellate Board within five (5) business days of the decision. Such appeals shall be in writing and shall be delivered to the Executive Dean of Student and Academic Support Services or his/her designee.

2. Except as required to explain the basis of new information, an appeal shall be limited to a review of the verbatim record of the Student Oversight Committee Hearing and supporting documents for one or more of the following purposes:
   a. To determine whether the Student Oversight Committee Hearing was conducted fairly in light of the charges and information presented, and in conformity with prescribed procedures giving the complaining party a reasonable opportunity to prepare and to present information that the Student Code was violated, and giving the Accused Student a reasonable opportunity to prepare and to present a response to those allegations. Deviations from designated procedures will not be a basis for sustaining an appeal unless significant prejudice results.
   b. To determine whether the decision reached regarding the Accused Student was based on substantial information, that is, whether there were facts in the case that, if believed by the fact finder, were sufficient to establish that a violation of the Student Code occurred.
   c. To determine whether the sanction(s) imposed were appropriate for the violation of the Student Code which the student was found to have committed.
   d. To consider new information, sufficient to alter a decision, or other relevant facts not brought out in the original hearing, because such information and/or facts were not known to the person appealing at the time of the original Student Oversight Committee Hearing.

If an appeal is upheld by the Appellate Board, the matter shall be returned to the original Student Oversight Committee and Executive Dean of Student and Academic Support Services for re-opening of Student Oversight Committee Hearing to allow reconsideration of the original determination and/or sanction(s). If an appeal is not upheld, the matter shall be considered final and binding upon all involved.

ARTICLE V: INTERPRETATION AND REVISION

A. Any question of interpretation or application of the Student Code shall be referred to the Executive Dean of Student and Academic Support Services or his or her designee for final determination.

B. The Student Code shall be reviewed every year under the direction of the Executive Dean of Student and Academic Support Services.

**TITLE IX POLICY**

**Clergy**

**Title IX Law**

**Campus Sexual Violence Act (Save)**

**Violence Against Women Act (VAWA)**

**Policy**

Mid Michigan Community College (MMCC) is committed to maintaining a positive learning environment for students, faculty, staff, and visitors. Our primary concern is for the safety of our students, staff, and visitors. Based on this context, all members of the campus community need to have freedom from all forms of gender and sex-based discrimination. Examples of such include (but are not limited to) acts of sexual violence such as sexual assault, sexual harassment, dating violence, domestic violence, sexual exploitation and stalking. All members of the campus community are expected to conduct themselves in a manner that does not infringe upon the rights of others. Mid Michigan Community College has adopted a zero tolerance policy for gender-based misconduct. MMCC’s Title IX, Campus Sexual Violence, & Violence Against Woman Act (VAWA) Policy reaffirm these principles and provide recourse for those individuals whose rights have been violated. Title IX forbids sex discrimination in all college services and programs. This includes sexual misconduct, failure to provide equal opportunity, and discrimination based on pregnancy.

**DUTY TO REPORT**

All MMCC employees have an obligation to promptly report allegations of gender, sex-based, sexual misconduct or other violations of the Title IX, Campus Sexual Violence, & Violence Against Woman Act (VAWA) Policy to the Title IX Coordinator or his/her designees. All complaints of
this nature, investigative documents and relative materials to the resolution of the matter will be maintained electronically in the appropriate office. All documents will be confidential to the extent allowed under state and federal law.

RETALIATION

No person shall be penalized for good faith utilization of channels available for resolving complaints of sexual misconduct, gender discrimination, or Title IX issues. Retaliation includes but is not limited to intimidation, threats, harassment, and any other adverse action threatened or taken against any person for engaging in protected activity.

Anyone who believes he or she has been the victim of retaliation for opposing discriminatory behavior, reporting sexual misconduct, or participating/cooperating in an investigation, should immediately contact the Title IX Coordinator. Any person found to have retaliated against a person for engaging in protected activity will be in violation of the Policy and subject to disciplinary action.

FALSE STATEMENT

Should the College's investigation reveal that a complaint was knowingly false and/or that false evidence was knowingly and willfully provided, the complaint will be dismissed and the person who knowingly filed the false complaint and/or provided the false evidence may be subject to disciplinary action.

CONFIDENTIALITY

MMCC college faculty and staff have a duty to report incidents of sexual violence, sexual misconduct, gender discrimination or Title IX issues when such information is disclosed. All complaints will be promptly and thoroughly investigated by the College's Title IX Coordinator or his/her designees. The College will make reasonable and appropriate efforts to ensure an individual's privacy and will protect confidentiality when conducting an investigation and resolving a complaint, except as otherwise required by law. Should a complainant request confidentiality or ask that a complaint not be investigated, the request will be considered. However, the College cannot guarantee that said request will be honored. If a complainant insists that his/her name not be disclosed to the respondent, the College's ability to respond may be limited. The College reserves the right to investigate despite a complainant's request for confidentiality, in limited circumstances involving serious or repeated conduct or where the respondent may pose a continuing threat to the campus community. The College is required by the federal Clery Act to report certain crime statistics, including certain types of sexual misconduct. When filing the report, confidentiality is maintained and no personal information about the complainant or respondent is revealed. The type of incident is reported in the Annual Security Report. www.midmich.edu/securityreport

FILING A COMPLAINT

Mid Michigan Community College strongly encourages anyone who experiences or observes any gender-based discrimination, sexual violence, or sexual misconduct to promptly report the incident(s) and seek assistance from the College. The College can only take corrective action when it becomes aware of the problem.

The College reserves the right to act as a complainant and initiate conduct proceedings without a formal complaint by the victim of discrimination.

Any student, staff member, or other member of the college community who experiences, observes, or learns about any gender-based discrimination, sexual violence, or sexual misconduct is requested to immediately report the situation to the College's Title IX Coordinator:

Kim Barnes
Executive Dean of Student and Academic Support Services
(989) 386-6622 ext. 236
kbarnes@midmich.edu

Incidents can also be reported by utilizing the on-line reporting form:
www.midmich.edu/incidentreport

OFFICE OF CIVIL RIGHTS

A complaint can be filed by anyone who believes that a school receiving Federal financial assistance, has discriminated against someone on the basis of race, color, national origin, sex, disability, or age. The person or organization filing the complaint need not be a victim of the alleged discrimination but may complain on behalf of another person or group. For information on how to file a complaint with OCR, visit http://www2.ed.gov/about/offices/list/ocr/complaintintro.html or contact OCR's Customer Service Team at 1-800-421-3481.

Office for Civil Rights
Cleveland Office
U.S. Department of Education
1350 Euclid Avenue, Suite 325
Cleveland, OH 44115
Telephone: (216) 522-4970;
Facsimile: (216) 522-2573
Email: OCR.Cleveland@ed.gov

To review MMCC's full Title IX, Campus Sexual Violence, & Violence Against Woman Act (VAWA) policy visit: www.midmich.edu/titleix
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 and regulated by the appropriate federal guidelines. A copy of this policy may be obtained upon request from the Office of Enrollment Services.

Directory information may be released unless a student informs the Office of Enrollment Services in writing 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.

MMCC also reserves the right to release information without prior student consent under the following conditions:

1. Requests from faculty and staff who have a legitimate education interest on a “need to know” basis, including student employees or agents of the institution, if necessary to conduct official business, as authorized by the Associate Dean of Student and Academic Support Services. See below for additional information on what constitutes legitimate educational interest. Legitimate educational interest includes performing a task related to the regular duties of the employee or agent, the student’s education, the discipline of a student, a service or benefit for the student, or maintaining safety and security of the campus.

2. Requests in compliance with a lawful subpoena or judicial order.

3. Requests in connection with a student’s application for or receipt of financial aid.

4. Requests by state authorities and agencies specifically exempted from the prior consent requirements by the Act—organizations conducting studies on behalf of the university, if such studies do not permit the personal identification of students to any persons other than to representatives of such organizations and if the personal identification data is destroyed when no longer needed.

5. Information submitted to accrediting organizations.

6. Requests by parents of a dependent student, as defined in Section 152 of the Internal Revenue Code of 1954.

7. In the case of emergencies, MMCC may release information from education records to appropriate persons in connection with an emergency, if the knowledge of such information is necessary to protect the health or safety of a student or other persons.

8. To authorized federal officials who have need to audit and evaluate federally-supported programs.

9. The results of any disciplinary proceeding conducted by the university against an alleged perpetrator of a crime of violence to the alleged victim of that crime.

10. To verify the accuracy of any information contained in what purports to be an official college document (e.g. a transcript or diploma) or is provided to a third party.

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 Associate Dean of Student and Academic Support Services written requests that identify the record(s) they wish to inspect. The Associate Dean of Student and Academic Support 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:

Associate Dean of Student and Academic Support Services
Mid Michigan Community College
2600 South Summerton Road
Mt. Pleasant, MI 48858

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 that they believe is inaccurate or misleading. They should write the Associate Dean of Student and Academic Support 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 con-
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

SOCIAL SECURITY NUMBER DISCLOSURE STATEMENT

Federal law recognized the student’s Social Security Number (SSN) as personally identifiable information under the Family Education Rights and Privacy Act of 1974 (FERPA). However, the law allows Mid Michigan Community College to require and to use this information in compliance with state and federal guidelines. While you are not required to provide your SSN to be considered for admission to Mid Michigan Community College, you are strongly encouraged to do so, if you have one. Providing a SSN will speed up matching material such as transcripts and test scores with your application. A SSN is required if you are applying for financial aid or federal tax benefits, or for employment; it may be required for other purposes. The information may be disclosed only under certain circumstances, including the following:

• To other institutional officials
• To representatives of state and local educational authorities
• In connection with financial aid
• For research purposes to improve instruction
• To collection agents in connection with college-related businesses
• Pursuant to an order from the court of law
• Other circumstances are required by state or federal law

Mid Michigan Community College is committed to ensuring the privacy and confidentiality of student records.

VOTER REGISTRATION

Applications are available on both the Harrison and Mt. Pleasant campuses.
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

Enduring Goal #1: Enabling Student Success

The success of MMCC is tied inexorably to the success of our students. To accurately assess our students’ success, we must recognize that students choose MMCC for a wide variety of reasons; consequently, we must first accurately identify individual student’s goals and then facilitate each student’s ability to attain those goals. To that end, we must provide relevant, high-quality instruction, programming, and services that adapt to diverse learning styles, that enhance students’ ability to perform in a global society, that support career advancement, and/or that facilitate successful transfer to a senior institution. To maintain both efficiency and a student-centered learning environment, MMCC must thoughtfully balance a high tech/high touch approach.

Enduring Goal #2: Enhancing Employee Success

The success of MMCC depends on our employees. We must provide effective leaders who value and support high standards of performance using clear direction and open, honest com-
munication. We must work collaboratively to create, nurture, and sustain a culture of mutual support and service. To do so, we must align and support employees in positions that most effectively utilize, develop, and challenge their talents.

Enduring Goal #3: Engaging the Community

The success of MMCC depends on the support of the communities we serve. Consequently, we must continuously and deliberately develop and maintain mutually beneficial relationships with our multiple communities. At the same time, we must provide leadership in uniting our communities by positioning MMCC as a regional service provider. We must identify and prioritize the most significant needs of our communities, assuring that our activities align closely with our mission.

Enduring Goal #4: Improving Institutional Effectiveness

The success of MMCC depends on the way we work. In an unstable state and national environment, we must create our own stability yet be agile to serve the needs of both our internal and external customers. In times of economic uncertainty, we must develop and use our precious human, financial, and physical resources prudently and efficiently. We must ensure that our means of making decisions, communicating, and planning are streamlined yet inclusive. We must put the principles of the Academic Quality Improvement Program at the center of our operations, using data to guide our constant pursuit of excellence.

PROFILE OF MID MICHIGAN COMMUNITY COLLEGE STUDENTS *

As a community college, we are committed to assisting each student meet his/her unique goals. As illustrated by the Fall 2014 profile, our student body is diverse:

**Student Credit Hour Load**

- Male Full Time: 26%
- Female Full Time: 24%
- Male Part Time: 18%
- Female Part Time: 31%

**Student Age Distribution**

- Under 18: 20%
- 18-25: 58%
- 26-40: 17%
- 41 & Over: 5%

**Geographical Residence**

- Clare County: 19%
- Gladwin County: 11%
- Isabella County: 28%
- Gratiot County: 9%
- Other Counties: 33%

**Gender of Students**

- Female: 58%
- Male: 42%

Declared Program Choices

- General: 39%
- Business & Public Service: 30%
- Trade, Industrial & Technical: 5%
- Health Occupations: 26%

*Figures based on academic classes only

MMCC 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 the 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 audio-visual materials were obtained from the Harrison Public Library. On September 15, 1969, the first classes moved to the present Campus location and on November 24, 1969, all of the remaining classes were moved. Meanwhile, classes continued to be held at the Mt. Pleasant locations.

Construction of the Food Service/Student Center was completed in 1972; the Goldberg Orientation Center, which originally 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. Technical Trades Center 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 also serves the Isabella and Gratiot County areas.

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 a Michigan Technical Education Center (M-TEC) to serve business, industry and the community. The Center was completed in 2001 and provides training for employees and potential employees of industrial and construction trades.

One of the main goals of the College is to better serve students, thus helping them achieve success. This goal was achieved with the addition of the Student Orientation and Academic Readiness (SOAR) Center which opened in August 2004. This Center consolidated student services and academic support in one building to provide more comprehensive, coordinated service centered on student needs. Students now have easier access to all services in an inviting atmosphere. Consolidation of services also provides more efficient utilization of human resources and for the first time exhibits an obvious front door for the College.

Recognizing the growing need for skilled healthcare professionals, MMCC opened the Herbert D. Doan Center for Science and Health Technologies in the Spring of 2008. Located on 44 acres in Mt. Pleasant, the Doan Center is a vital part of MMCC’s effort to expand its highly respected nursing program and establish new health science programs. The Center doubled MMCC’s available space in Mt. Pleasant and provided additional science labs, classrooms, and computer labs.

Further expansion continued at the site of the new Mt. Pleasant Campus. An addition to house student services (built on the same concepts as the Harrison Campus SOAR Center) was completed in March 2011. The Center for Liberal Arts and Business replaced the Pickard Campus in 2014. Students are now able to receive a full range of services at either location - Harrison or Mt. Pleasant. Finally, the Morey Technical Education Center opened in Fall 2014 on the Mt. Pleasant Campus. The technical center allows the college to meet the workforce demands of the region and complement the technical training available on the Harrison Campus.

Since the College opened its doors to 196 students in the fall of 1968, it has worked to meet the needs of the community and is now serving more than 6,000 students annually on both a fulltime and part-time basis.

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**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.hlcommission.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
- State Board of Nursing
- Mid Michigan Community College Association
- Michigan Community College Association of Community College Trustees
- Council of North Central Community Jr. Colleges
- Michigan Community College Association
- American Association for Higher Education
- American Association of Community Colleges
- Association of Community College Trustees
- Community College Consortium, U. of M.
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- 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 Vice President of Academic Services at (989) 386-6607 or visit www.middmich.edu/community/aboutmmcc/accreditation. Written requests may be mailed to 1375 S. Clare Avenue, Harrison, MI 48625.

A number of MMCC’s programs are also accredited/approved by other organizations. These include:

- The Associate in Applied Science: **Medical Assistant** program is accredited through CAAHEP - Commission on Accreditation of Allied Health Education Programs and (MAERB) - The Medical Assistant Education Review Board. Accreditation for this program was obtained on April 30th, 1999, and has been granted re accreditation until 2024.

- The Associate Degree in **Nursing** is approved by the Michigan State Board of Nursing.

- The Training Credential: **Pharmacy Technician** program 2016 re-accreditation process is currently under way through ASHP – Associate Society of Health-System Pharmacists.

- The Associate in Applied Science: **Physical Therapist Assistant** Program at Mid Michigan Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; Telephone: 703-706-3245; Email: accreditation@apta.org; Website: http://www.capteonline.org.

- The Associate in Applied Science: The **Radiography** Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) and has been granted reaccreditation through 2023.

- The **Magnetic Resonance Imaging (MRI)** Program is currently seeking accreditation through the Joint Review Committee on Education in Radiologic Technology (JRCERT).
NON-DISCRIMINATION POLICY

Mid Michigan Community College is dedicated to providing a safe and healthy environment that is nondiscriminatory in nature and in which all individuals are treated with respect and dignity. Interactions between members of the campus community should be centered on integrity and mutual respect so that each member may fully experience and benefit from the opportunities the College provides.

Mid Michigan Community College prohibits any form of discrimination against any person on the basis of race, color, religion, sex, gender identity or expression, pregnancy, age, sexual orientation, marital or parental status, national origin, citizenship, disability, military or veteran status, or any other legally-protected status, in the administration of and access to the College's programs and activities and in conditions of admission or employment. Mid Michigan Community College is committed to and adheres to the principles of all applicable state and federal equal opportunity laws and regulations for its students, faculty, staff and applicants for admission and employment.

Questions and complaints concerning Title IX of the Education Amendments of 1972, including the College's response to sex discrimination and sexual and gender-based harassment, may be referred to the Title IX Coordinator and/or the United States Department of Education:

Title IX Coordinator
Executive Dean of Student and Academic Support Services
1375 S. Clare Ave.
Harrison, MI 48625
(989) 386-6622 ext. 236
kbarnes@midmich.edu

Office for Civil Rights
Cleveland Office
U.S. Department of Education
1350 Euclid Avenue, Suite 325
Cleveland, OH 44115
Telephone: (216) 522-4970; Facsimile: (216) 522-2573
Email: OCR.Cleveland@ed.gov

Questions and complaints concerning other forms of discrimination in the educational or employment areas may be referred to the Civil Rights Coordinator and/or the United States Equal Employment Opportunity Commission:

Civil Rights Coordinator
Executive Director of Personnel Services
1375 S. Clare Ave.
Harrison, MI 48625
(989) 386-6692
lfassett1@midmich.edu

AMERICANS WITH DISABILITIES ACT

Mid Michigan Community College (MMCC) is committed to providing an environment that is responsive and inclusive for people with disabilities. The College prohibits unlawful discrimination on the basis of disability and takes appropriate action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities equal access to admission, services, college courses, programs, activities, facilities, and technology.

Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act of 2008, states that any individual who has (1) a physical or mental impairment that substantially limits a major life activity, (2) has a record of having such an impairment, or (3) is regarded as having such an impairment, is protected under the law.

MMCC is not required to provide accommodations that would fundamentally alter an educational program, service, or activity. Nor is the College required to provide accommodations that would change academic requirements that are essential to a program of study or licensing requirement, or which would create an undue financial or administrative burden. MMCC must ensure that eligible students with disabilities receive reasonable and appropriate accommodations. In most cases, MMCC will require documentation of the disability and the necessity for requested accommodations.

The Office of Disability Services, located within Student Services on both the Harrison and Mt. Pleasant Campuses, oversees the coordination of reasonable accommodations for students with disabilities. Faculty and Staff should contact the Office of Personnel Services for coordination of reasonable services and accommodations. Our goal is to ensure that individuals with disabilities and the rest of our college community will have a shared experience of enrichment and learning.

United States Equal Employment Opportunity Commission
Detroit Field Office
Patrick V. McNamara Bldg.
477 Michigan Ave.
Detroit, MI 48226
Telephone: (800) 669-4000; Facsimile: (313) 226-4610
CURRICULUM CHANGES FOR ACADEMIC YEAR 2015-2016 (EFFECTIVE 7/1/2016)

CURRICULUM CHANGES FOR 2015-2016

New Programs – no new programs of study developed.

Program Changes –

- Any degree requiring HUM 200 will now allow choice of either HUM 200 or HUM 253.
- Associate in Applied Science – Business Information Systems – reduced total credits required for degree from 65 to 62 credits by reducing the requirement for coursework on selected “Track” (General BIS Track, Medical Office Track, or Legal Office Track) from 12 credits to 9 credits.
- Associate in Applied Science - Graphic Design – moved CIS 100 from required course to an elective choice and moved ART 152/CIS 135 from being an elective choice to a required course.
- Associate in Arts: Liberal Studies Transfer – changed maximum allowed credit allowance from 2 credit hours to 9 credit hours from Group VI – HED or PED.
- Associate in Applied Science - Magnetic Resonance Imaging (MRI) – Students may now take BIO 138 OR BIO 141 and BIO 142. Note also placed on guide stating that if students are planning to transfer, it is strongly recommended they take BIO 141 and BIO 142.
- Associate in Science: Math and Science Studies Transfer – removed credit limit within elective category for credits from Group VI – HED or PED.
- Associate Degree in Nursing: Students may now take BIO 138 OR BIO 141 and BIO 142. Note also placed on guide stating that if students are planning to transfer, it is strongly recommended they take BIO 141 and BIO 142.
- Associate in Applied Science: Physical Therapist Assistant - Students may now take BIO 138 OR BIO 141 and BIO 142. Note also placed on guide stating that if students are planning to transfer, it is strongly recommended they take BIO 141 and BIO 142.
- Associate in Applied Science – Radiography – Removed BIO 110, Microbiology and CHM 105, Introductory Chemistry from course requirements and reduced credit hours from RAD 110 and RAD 230, reducing total number of credit hours required for degree to 76 credits. Students may now take BIO 138 OR BIO 141 and BIO 142. Note also placed on guide stating that if students are planning to transfer, it is strongly recommended they take BIO 141 and BIO 142. Changed of wording of requirement regarding required science courses. Changed to align with other health program requirements to say “If students have taken BIO 141 & BIO 142 courses prior to admission to the Program, the courses must have been completed within five (5) years of the date the student formally begins the Program.”

Deactivated Programs –

- Associate in Applied Science, BIS-Medical Transcription

New Courses –

- **BIO 138, Human Anatomy and Physiology**, 6 credit hours; 4 lecture hours and 4 lab hours. Course description: This course provides students with an intensive, in-depth introduction to the structure and function of all human body organ systems. The emphasis is on homeostasis of body systems under normal structure and function, with the inclusion of some pathologies. The laboratory portion includes dissections, study of anatomical models and slides, and physiological experiments. (Replaces BIO 135)

- **CHM 245, Organic Chemistry I**, Lecture, 4 credits. Course description: Organic Chemistry I is the first course in a two semester sequence of organic chemistry for students who are considering careers in some field of science, pre-professional health studies or engineering. It includes the study of the nomenclature, physical and spectral properties, structure, stereochemistry, spectroscopy, and reactions (with their mechanisms) of saturated and unsaturated hydro carbons and alkyl halides. It is recommended that this course be taken concurrently with CHM 255, Chemistry I Lab. Prerequisite: CHM 112 or a minimum grade of B or better in CHM 111. (CHM 245 and CHM 255 replace CHM 241)

- **CHM 246, Organic Chemistry II**, Lecture, 4 credits. Course description: Organic Chemistry II is the second course in a two semester sequence of organic chemistry for students who are considering careers in some field of science, pre-professional health studies or engineering. It is a continuation of CHM 245, Organic Chemistry. This course includes the study of the nomenclature, physical and spectral properties, structure, stereochemistry, and reactions
systems and use advanced HTML, CSS, JavaScript, and related web technologies to customize the functionality and

design and development techniques. Students will explore open source content management technologies to construct web pages. As the final course outcome, students will build their own online portfolio or a website that acts as an individual portfolio piece. ART 152 is also cross-listed as CIS 135. Credit may not

merchandising types of businesses. 

Course description: 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 divisional accounting. Students will conduct an experiment in the lab that is meant to help them understand organic chemistry principles and also to gain experience in scientific research methods. This laboratory course is designed to accompany CHM 245. Prerequisite: CHM 112 or minimum grade of B in CHM 111. (CHM 245 and CHM 255 replace CHM 241)

• CHM 256 Organic Chemistry II – Lab, 1 credit. Course description: Organic Chemistry Laboratory II is the second in a two semester sequence of organic chemistry laboratory courses for students who are considering careers in some field of science, pre-professional health studies or engineering. It addresses the use of previously acquired advanced laboratory techniques for the manipulation of organic compounds, including synthesis, separations and purifications. The characterization of organic materials by physical and spectroscopic methods is also addressed. Each week students will conduct an experiment in the lab that is meant to help them understand organic chemistry principles and also to gain experience in scientific research methods. This laboratory course is designed to accompany CHM 246. Prerequisite: CHM 255. (CHM 246 and CHM 256 replace CHM 242)

• ESL 101, English for Non-Native Speakers, 4 credit hours. Description: ESL 101 is a course for speakers of English as a second language (ESL) on using English for a variety of academic and social situations to prepare them for success as international students. It is a classroom course (i.e. traditional face-to-face) that meets for 4 contact-hours every week, with some students also required to attend weekly tutoring sessions in the Writing Center. It is intended to be flexible and student-centered in order to meet diverse language needs. Prerequisite: This course is designed for students with lower language proficiency (equivalent to a TOEFL CBT score below 187). All students enrolled in ESL 101 must be non-native speakers of English. The instructor has discretion in determining who is a non-native speaker of English and is eligible for this course. ESL courses are in Distribution Group I: Communication.

• ESL 103, Academic English for Non-Native Speakers, 4 credit hours. Course description: ESL 103 is a course for speakers of English as a second language (ESL) on reading and writing academic English intended to prepare them for the language tasks of an American postsecondary classroom. It is a classroom course (i.e. traditional face-to-face) that meets for 4 contact-hours every week. Prerequisites: Students enrolled in ESL 103 are required to have taken and passed ESL 101 with a C or better. Students able to demonstrate a high language proficiency may be allowed to waive this prerequisite based on the instructor's evaluation (equivalent to a TOEFL CBT score less than 213 but above 187).

• HES 100, Human Lifespan Development – 3 credit hours. Course description: This course introduces students to the study of the principles of human childhood foundations in our later development, as well as familial and societal influences on our development across the lifespan. This course is designed for students interested in early childhood development and family studies related majors and careers. Students who have taken PSY 212 or an equivalent should consult with an advisor. No prerequisite required.

Changes to Current Courses –

• ACC 201, Financial Accounting, removed BIS 120 prerequisite for Business Information Students to take ACC 201. Course description: 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.

• ART 152, Introduction to Website Design, change in course description, course outcomes, and removed CIS 100 prerequisite. No prerequisites to ART 152. New description: This course introduces the fundamentals of web design and development. Students will explore web technology topics and learn how to use HTML, CSS, JavaScript, and related technologies to construct web pages. As the final course outcome, students will build their own online portfolio or a website that acts as an individual portfolio piece. ART 152 is also cross-listed as CIS 135. Credit may not be earned in both classes.

• ART 252, Website Design II, change in course description and course outcomes. New description: This course applies advanced web design and development techniques. Students will explore open source content management systems and use advanced HTML, CSS, JavaScript, and related web technologies to customize the functionality and
appearance of dynamic websites. As the final course outcome, students will implement their own CMS with a responsive design and e-commerce features. ART 252 is also cross-listed as CIS 235. Credit may not be earned in both classes.

- **BIO 203, Zoology**, new course description: Topics cover fundamental principles of zoology including taxonomy, evolution, and characteristics of major animal phyla with emphasis on anatomy and physiology of selected groups. Lab will support exploration of animal groups using microscopic observations and dissections of preserved specimens. Prerequisite: BIO 101 with a minimum grade of C.

- **BIS 230, Transcription I** course title changed to Written Correspondence I and new course description: Using the computer, current word processing software, and a variety of reference materials, students develop skill and accuracy in transcribing from CDs 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.

- **BIS 234, Transcription II** course title changed to Written Correspondence II and new course description: This course is an intense application of skills learned in business communications, English, keyboarding/word processing, and other BIS courses. The students transfer material into high-quality (mailable) keyboarded documents using computers, current word processing software, CDs, and a variety of reference materials. To provide a realistic experience, a word processing simulation is used.

- **BIS 236, Medical Transcription I**, added BIS 126 as a prerequisite. Prerequisites for this course will now be: ALH 100, BIS 126, BIS 142 and BIS 230. Course description: 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, transcription machines, & a variety of reference materials. To provide a realistic experience, a medical simulation is used along with dictated documents on CDs.

- **BUS 250, Entrepreneurial Management**, added MAT 107 or MAT 116 and ACC 201 as prerequisites to course. Course description: 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. Prerequisites: BIS 130 or CIS 100, BIS 140 or equivalent

- **CHM 111, General College Chemistry 1**, increased to 5 credits; 4 lecture hours and 3 lab hours. Changed prerequisite to add minimum grade of C required in CHM 105 or minimum grade of C in one year of high school chemistry. New course description: CHM 111 serves as the first semester in a standard first year College Chemistry sequence. This course covers fundamental concepts in Chemistry including atomic structure, molecular structure, chemical reactions, fundamentals of thermodynamics, measurement and chemical calculations, gases, and solution chemistry. The lab component provides a hands on opportunity to investigate these concepts.

- **CHM 112, General College Chemistry 2**, increased to 5 credits; 4 lecture hours and 3 lab hours. Changed prerequisite to add minimum grade of C required in CHM 111. New course description: This course serves as the second semester in a standard first year Chemistry sequence. This course covers fundamental concepts in including intermolecular forces, solutions, kinetics, equilibrium, acid/base chemistry, thermodynamics, and electrochemistry. The lab component provides a student a hands on opportunity to investigate these concepts.

- **BUS 255, Entrepreneurial Finance**, changed prerequisites to be: “MAT 107 or MAT 116 and ACC 201. It is recommended that students have also completed BUS 151 and either ECO 201 or ECO 202.” Course description: 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.

- **CIS 131, Advanced Java Programming**, change the prerequisite from CPS 150 to CIS 121, Introduction to Java Programming. 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.

- **CIS 135, Introduction to Website Design**, change in course description, course outcomes, and removed CIS 100 prerequisite. No prerequisites to CIS 135. (See ART 152 for description)
• **CIS 190, Cisco Internetworking I**, remove CIS 100 and MAT 104 as prerequisites and added CIS 170 as corequisite. Course description: 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.

• **CIS 225, Database Systems**, remove CIS 100 and CIS 130 as prerequisites. Planned as second-year course but no prerequisites. Course description: This course covers relational database concepts and tools focused in an Oracle environment. Specifically, relational database concepts (rows, tables, and keys), table creation/modification (DDL and SQL), PL/SQL, forms, reports, and database administration tasks are presented. In-class work will consist of 1 ½ hours of lecture followed by 1 ½ hours of practical application. Required software is available on computers at the college; if students wish to complete assignments at home, they will need to procure the correct software.

• **CIS 235, Website Design II**, Computer Operating Systems, change in course description and course outcomes. (See ART 252 for description)

• **CIS 255, Computer Operating Systems**, renumbered to CIS 155 and removed prerequisites. Course description: A detailed study of the Windows 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 ½ hours of individual laboratory work per week. No prerequisite.

• **CIS 260, Systems Analysis**, removed CIS 100 as prerequisite. Planned as a second-year course but no prerequisites. Introduces students 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 are discussed. Structured design techniques are emphasized.

• **CIS 270, Networking Essentials**, renumbered to CIS 170 and removed all prerequisites. Course description: 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.

• **ECE 202, Creative Development of the Child**, new course description: This course will focus on curriculum development in an early childhood setting. Students will learn how children become creative thinkers, how to encourage creativity in young children in multiple content areas. Activities will be developed for implementation in a lab setting. 30-hour lab placement is required. ENG 111 is highly recommended prior to enrolling in this course.

• **ECE 206, Parent, School and Community**, new course description: This course will explore in-depth the important relationship between the early childhood program and the families it serves. The student will focus on family-centered care and transformative education, observing communication strategies at early childhood events, and observing service agency resources for families. 30-hour lab placement is required. ENG 111 is highly recommended prior to enrolling in this course.

• **ECE 208, ECE Practicum**, new course description: This course prepares the student for a professional role within the field of early education. The student will demonstrate knowledge of central issues, professional values and standards, and research findings in the field of early childhood education. The student will use reflections to modify and improve their work with young children. This course includes the student’s development of a professional electronic portfolio. 50-60 lab hours are required.

• **ENG 111B, Portfolio Tutorial**, is being reactivated along with the ENG 111 Portfolio Process. Course description: English 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 English 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 to enroll in the course.

• **ENG 289, Film, Filmmaking, and Culture**, changed course description to remove requirement to purchase services such as Netflix and iTunes. New course description: In this course, film will be approached as an important sociological and cultural artifact and as both primary and secondary sources of historical information and insight. This course will also introduce the student to the techniques of this unique art form. The goal is to learn how to watch film from an analytical perspective. Prerequisite: ENG.111

• **HUM 253, American Culture**, has been approved as an option on any program of study to be used in place of HUM 200. Course description: This course is designed to introduce from a variety of programs to a humanities approach into American Culture. This exploration will focus on the way the humanities and their concern with art, ethics,
history, philosophy, and culture analyze the cultural production and reproduction of values in the United States. This course will stress interaction through writing, collaborative assignments, presentations, and discussions to

- emphasize the humanities’ commitment to self-discovery, expression, and reflection. Prerequisites: ENG 111 and either SPE 101 or SPE 257

- **MAT 060, Math Study Skills**, was changed from a Pass/Fail class to letter grades.

- **MAT 104, Basic Study Skills**, course objective and course description were changed. New description: This course covers the fundamentals of basic algebra. Topics include: evaluating and simplifying expressions, solving first degree equations and inequalities, applications of first degree equations, graphing two variable equations, solving simultaneous systems of linear equations and polynomial operations. Prerequisite: Grade of C or better in MAT 101 OR MAT 102 OR equivalent.

- **PSC 102, Introductory Physical Science**, change in course description and prerequisite. New course description: A one semester course for science majors or non-science majors. The basic principles and concepts of physical science, including the structure of matter and the magnitude and character of energy and physical forces, will be analyzed and applied towards a scientific understanding of the Earth and other planetary bodies. Laboratory experiments will illustrate the role of observation, prediction and modeling in the physical sciences. Appropriate for students considering further study in chemistry, physics, geology, meteorology or astronomy. (Note, PSC 102 does not earn transferable science credit for any of the above listed scientific disciplines.) Prerequisite: either one year of high school Algebra, concurrent enrollment in MAT 104, or completion of MAT 104.

- **RAD 110, Radiation Physics**, removed lab component which reduced credit hours to 2 credits. Course description: Radiation Physics (RAD.110) is a course designed to prepare students with a basic understanding of the principles of Radiation Physics, X-Ray Production and Interactions. Areas of concentration include Units of Measurement, Forces, Motion, Electrostatics, Magnetism, Basic Electrical Circuits, and Atomic and Nuclear Physics. Emphasis will be placed on the study of ionizing radiation which is especially important to the Radiographer. Two hours per week will be devoted to lecture and discussion and the remaining two hours will be spent in the laboratory conducting experiments associated with the lecture topics. Prerequisite: Admission to the Radiography Program Corequisite: RAD.100

- **RAD 230, Radiographic Quality Assurance**, due to film screen imaging no longer part of program curriculum or on national certification exam, reduced credit hour of course to .5 credits. Course description: The course discusses the principles of a department wide quality assurance program. The concepts, instrumentation, and testing methods used in radiology departments for quality control of the radiographic imaging system(s) are also covered. Prerequisites: RAD.201, RAD.205, RAD.211, RAD.213, RAD.215. Corequisites: RAD.217, RAD.221, RAD.250

- **WLD 130, Metal Fabrication**, prerequisite changed to minimum grade of “C” in WLD 125 or WLD 126, and DRF 101; added corequisite of WLD 127. Course description: Fundamentals of metal fabrication procedures and metal layout procedures are covered in this course. Pipe layout and procedures are also covered.

Deactivated Courses –
- **AIB courses**
  - ALH 250, Med Asst Off Extern
  - BIO 135, Human Anatomy and Physiology – replaced by BIO 138
  - BIS 221, Computers in Business
- **CBI courses**
  - CHM 241, Organic Chemistry I – replaced by CHM 245 and CHM 255
  - CHM 242, Organic Chemistry II – replaced by CHM 246 and CHM 256
  - CIS 151, C# Programming
  - CIS 152, C# Programming II
  - CIS 203, Web Security
  - CIS 205, e-commerce
• **CIS 246**, Computer Setup & Repair – Software
• **CIS 247**, Computer Setup & Repair - Hardware
• **CIS 256**, Windows 2000 Pro
• **CIS 271**, Windows Server
• **CIS 272**, Active Directory Services
• **CIS 273**, Implementation Microsoft Windows Network
• **CIS 274**, Microsoft Internet Information Server
• **ELT courses**
• **EMS courses**
• **ENV courses**
• **ESL 102**, English as a Second Language – replaced by ESL 101 and ESL 103
• **FFT courses**
• **HED 151**, Personal Health & Hygiene
• **HFL courses**
• **HIT courses**
• **MID 103**, Human Relations was deactivated. Course still active as PSY 103
• **NAL courses**
• **NUR 127**, Maternal-Child Nursing
• **NUR 130**, Nursing Clinical III
• **NUR 134**, Trends in Leadership
• **NUR 28**, Nursing Clinical II
• **PED 118**, Beginning Tennis
• **PED 121**, Intro to Scuba
• **PED 126**, Beginning Bowling
• **PED 218**, Intermediate Tennis
• **PED 226**, Intermediate Bowling
• **PED 246**, Advanced Bowling
• **PED 248**, Advanced Tennis
• **RAD 200**, Clinical Education I
• **RAD 220**, Clinical Education II
• **RAD 225**, Clinical Education III
• **RAD 226**, Clinical Education III
• **RAD 227**, Rad Review Capstone
• **RAD 230L**, Rad Quality Assurance – Lab
• **TDT courses**