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## Academic Programs

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## Course Descriptions

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Welcome to Montcalm Community College. This college was created to provide excellent local learning opportunities. On the following pages, you can read about the college, its curriculum and various learning support services.

Should you choose to participate in college programs or services, I believe that you will find staff members to be pleasant and helpful. This college is here to support your learning needs and the staff is here to assist you in the process.

I hope that you find this catalog helpful as you seek information and I encourage you to continue your learning. Best wishes for a bright future.

About MCC
Montcalm Community College began in fall 1963 as an idea in the minds of a group of public-spirited citizens. It had become obvious to the people of Montcalm County that such factors as distance to existing colleges, rising educational costs, increasing demands upon institutions of higher education and the growing specialization of the work force were combining to form a mandate for local post-high school education.

MCC became a reality on March 2, 1965 when it was established by an overwhelmingly favorable vote. The first Board of Trustees was also elected and a one-mill annual tax levy was established.

Completion of a joint site survey in September resulted in the purchase of land on Sidney Road for the campus. MCC's 240-acre-campus is near both the geographical and population centers of the district and is accessible from all directions by county and state highways.

Four presidents have served MCC including Dr. Donald Fink, 1965-1971; Dr. Clifford Bedore, 1971-1978; Dr. Herbert Stoutenburg, 1978-1984; and Dr. Donald C. Burns, 1984-present.

The college has enjoyed a long history of accreditation by the North Central Association of Colleges and Secondary Schools.

MCC has progressed steadily since its approval by area voters in 1965. Credit courses are available to students desiring selected classes or classes leading to a certificate or degree. Upgrading and retraining courses, a wide variety of non-credit and recreation courses, employment services, counseling, financial aid assistance, career planning services and tutoring are also available. A dedicated staff, student body and community have helped make the dream of 1963 a viable community college—a learning community dedicated to meeting the educational needs of the people it serves.

The Mission
Montcalm Community College creates a learning community in which educated and trained people contribute to the economic, cultural and social well-being.

The Goals
PROVIDING OPPORTUNITIES FOR LIFELONG LEARNING

Providing general education that will improve student knowledge and understanding in a wide range of disciplines common to liberal arts education.

Assisting students in overcoming deficiencies and acquiring skills fundamental to further academic, career and personal achievement.
1. Providing continuing education services for those seeking professional development and credentialing.

2. Facilitating community development in such areas as avocation, recreation, health and fitness.

3. Developing awareness of global interdependence and the value of human diversity and commonality.

4. Developing the intellectual and communication skills necessary to contribute productively to the world community.

PREPARING PEOPLE FOR SUCCESSFUL TRANSFER

5. Providing liberal arts, science and technical study programs at the freshman and sophomore levels that are transferable to other institutions of higher education.

PREPARING PEOPLE FOR COMPETENCE IN THE WORKPLACE

6. Providing occupational programs and courses based on current standards and workplace competencies for those seeking career preparation.

7. Providing consultation and human resource development for area employers and employees.

The Values
Montcalm Community College subscribes to the following institutional values:

8. We provide a caring environment for our students, staff and community.

9. We expect competence and the pursuit of excellence from our students and staff.

10. We possess a community orientation and support the development of a world-class community.

The Educational Program
The educational program at Montcalm Community College is based on a philosophy having as its chief goals the following outcomes:

1. For arts and sciences students, a two-year college education of high quality will be provided offering a firm grasp of the basic areas of knowledge: communication skills, social science, natural science and humanities. In addition to this basic core of learning, a series of electives will permit students to explore areas of special interest. It is expected that students who complete two years of academic study will have an understanding of how knowledge is gained in the various academic disciplines and will possess the skills to become a lifetime learner.

2. For applied arts and sciences students, a high degree of occupational competence at the skilled or semiprofessional level should be achieved. For students who seek the associate degree as well as occupational competence, successful completion of the general education core will also be required. Because associate-degreed technicians frequently assist professional workers such as physicians, engineers or dentists, graduates are expected to have competence in the realm of ideas and theories as a necessary complement to skill training and possess the skills to become lifelong learners.

3. For all students, an opportunity to explore both academic and occupational studies while still qualifying for an associate degree will be provided. Where educational goals are not aimed specifically at transfer to a four-year college or at a skill specialty, students may enjoy greater flexibility in planning their programs of study along lines of varied interest.

4. For non-degree, non-certificate students, the opportunity to study for increased understanding, for greater job skill or for other personal reasons without reference to formal, prescribed educational pursuits is encouraged.

In all cases, MCC students will be expected to pursue a chosen course of study with enthusiasm and the best effort of which they are capable at all times. Students and their instructors should approach the learning task collaboratively and with an attitude of optimum achievement. A high quality of performance is a consistent demand of all in this community of learning.
Assessment Policy

Admission to the College

Montcalm Community College uses a variety of assessment methods to help ensure student success and to improve and document institutional effectiveness. Assessment begins during the admission process when students' basic reading, writing, math, and study skills are assessed. Results from the ASSET (pen/paper based) or COMPASS (computer-based) assessments assist advisors in determining appropriate course placement, including placement in basic academic skills development courses. Many courses require minimum performance levels on the ASSET or COMPASS assessments as a prerequisite to enrollment. These courses are identified in the Course Descriptions section of this catalog.

The ASSET or COMPASS assessment must be taken prior to enrolling in specific courses. Assessment schedules are available in the Enrollment Services Office. The following individuals may not be required to participate in the ASSET or COMPASS assessment: 1) those who have previously completed the ASSET/COMPASS assessment (students transferring assessment scores from another institution must provide a copy of the results), 2) those holding a bachelor or higher degree, 3) senior citizens (60 years of age and older), 4) those who audit a course that requires testing, and 5) those who obtain a waiver from the course instructor.

General Education

Members of the faculty have identified a core set of competencies that each associate-degree graduate from Montcalm Community College should possess. These competencies are considered integral to 1) providing opportunities for lifelong learning, 2) preparing people for successful transfer, and 3) preparing people for competence in the workplace. The identified competencies are reflected in a recommended set of courses that make up the general education core requirements for each of the three associate degrees offered at the college. All associate-degree graduates are expected to demonstrate increased:

- proficiency in written and oral communications;
- awareness and understanding of the physical world and the scientific method;
- awareness and understanding of culture and society in general;
- awareness and understanding of global interdependence and the interrelation of communities, states, nations, economies, and peoples;
- awareness and understanding of and proficiency in computational methods and mathematical concepts and applications;
- understanding of and proficiency in the application of the tools of information technology to personal and professional work;
- proficiency in critical and creative thinking, learning to learn, and problem solving; and
- ethical consideration in political, social, professional and personal endeavors.
Basic Academic Skills Development

Students whose ASSET/COMPASS assessment results indicate placement into an academic skills development course may enroll in the Skills Development Lab. The lab provides basic skills instruction in math, reading and writing. These credit courses are taught in an open lab setting that allows students to progress at their own learning pace. Instruction in study skills is provided.

The Guarantee
for Transfer Credit of Academic and Career Courses and for Job Competency

Montcalm Community College will refund the tuition of any MCC graduate for any course passed at MCC with at least a C grade if that earned course credit does not transfer to a college or university within two years of graduation from MCC. Such classes must be listed as transferable on the transfer institution’s official curriculum guide sheets, dated 1987 or thereafter, on file in the MCC Student Support Services Office.

Any graduate of an associate-degree program in occupational studies judged by his or her employer as lacking in technical job skills normally expected of a job-entry-level employee will be provided further skill training of up to 16 semester credit hours by MCC without charge.

*In some instances a grade of C—may not qualify.

Special Conditions — Occupational Studies

THE DEGREE
The graduate must have earned an associate degree after January 1, 1988, in a college-recognized specialty area (e.g., accounting, electronics technology, nursing, information systems) having followed a plan of study signed by the student and approved by the appropriate instructional administrator at least 30 credit hours prior to the student’s completion of the program.

THE EMPLOYMENT
The employment must be full time and the job must be certified by the Student Support Services as directly related to the graduate’s program of study.

The initial date of employment of the graduate must be within one year of the commencement date.

The employer must certify in writing that the employee is lacking the job-entry-level skills identified in writing at the time of initial employment, and must specify the area(s) of skills deficiency within 90 days of the graduate’s initial employment.

THE RETRAINING GUARANTEE
Skill retraining will be limited to 16 credit hours and enrollment in courses regularly offered by MCC.

The skill retraining must be completed in one academic year.

The employer, the graduate and a college counselor, with the advice of appropriate teaching faculty, will develop an educational plan which specifies the courses constituting the 16 credit hours of further retraining.

The graduate must meet all prerequisites, corequisites and other admission requirements for retraining courses.

Failure, withdrawal or audit of retraining courses is creditable to the 16-credit-hour limit.

The graduate or the employer will bear the cost of books, supplies, uniforms, transportation, insurance and other related items. The college will waive tuition and fees.
Admission Policy
Applicants for admission to degree or certificate programs must possess a high school diploma or GED certificate or meet the requirements of the college's ability to benefit policy. Admission to the college does not guarantee admission to academic programs which have specific entry requirements.

Montcalm Community College complies with applicable federal and state laws prohibiting discrimination, including Title IX of the education amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and the Michigan Handicappers' Civil Rights Act.

It is the policy of Montcalm Community College that no person, on the basis of race, sex, color, religion, national origin or ancestry, age, marital status, height, weight, disability or Vietnam-era veteran status, shall be discriminated against in employment, educational programs, activities, or admissions. In addition, arrangements can be made to ensure that the lack of English-language skills is not a barrier to admission or participation.

Admission Application
Application for Admission forms are available from the Enrollment Services Office, area high school counseling offices and community education offices. There is no application fee.

Prospective students should submit a completed Application for Admission form to MCC's Enrollment Services Office. Official copies of a student's high school transcript or GED results and, when applicable, transcripts from other colleges or universities the student has attended should be sent directly from the institutions to MCC's Enrollment Services Office.

Admission of Non-degree Seeking Students
Applicants who wish to take selected courses for personal interest or enrichment should indicate this on their Application for Admission. These applicants are not required to submit high school or college transcripts, but must complete entry requirements for specific courses. Non-degree applicants are not eligible for federal or state financial aid.

Admission of High School, Middle School and Elementary School Students
Students who wish to enroll in MCC courses prior to graduation from high school should meet with their school counselor to submit an Application for Admission and discuss readiness for college course work. Students eligible for dual enrollment must submit a Dual Enrollment Form or other written statement of eligibility from the school counselor or principal. Students enrolling at MCC before graduating from high school may enroll only on a non-degree basis.

Guest Students from Other Colleges
Students currently enrolled at other colleges or universities may attend MCC on a guest student status by completing a Michigan Uniform Guest Student Application, available from the Admissions Office at the institution where the student is enrolled. A student may not attend as a guest for two consecutive semesters.

International Students
International students should contact the Enrollment Services Office for an International Student Application for Admission. International students must submit original certified transcripts, in English, of all previous high school and post-secondary course work; a financial statement or affidavit of support indicating ability to meet all educational expenses; documentation of English language skills (500 or above on the TOEFL); and a letter indicating their educational plans. Students must have established housing and transportation arrangements.

Ability to Benefit Policy for Non-High School Graduates
Applicants without a high school diploma or GED whose high school class has graduated may enroll on non-degree status. These applicants will not be eligible for federal or state financial aid through MCC. Applicants who wish to be considered for admission to a certificate or degree program must meet with the Dean of Student Services and may be required to show successful completion of an assessment test.
Dual Enrollment

Dual enrollment is an educational option for high school students. Students are officially enrolled in high school and simultaneously enrolled in one or more college classes. The classes may be taken for both college and high school credit. Students interested in dual enrollment must contact their high school counselor or principal for eligibility requirements and authorization to register (Dual Enrollment Form). Students must meet all college admission and registration requirements.

New Student Enrollment Process

After applying for admission, prospective students should

- complete the ASSET/COMPASS assessment, which is required before enrolling in many entry-level courses;
- arrange to take the Academic Profile assessment. (This applies only to degree-seeking students.)
- attend a new student orientation session;
- meet with an MCC counselor to plan their academic program and discuss course selection;
- have official high school or GED transcripts sent to MCC; and
- apply for financial aid (if applicable).

Academic Advisement

New students are expected to attend a new student orientation session prior to beginning classes at MCC. The session introduces students to people, services and resources that help students succeed at MCC. Students also meet with an academic advisor to discuss their program of study and semester schedule. Students who need additional assistance should call the Student Support Services Office at 517/328-1231 for an appointment.

Students who take the ACT should request that a copy of their test scores be sent to MCC to assist in advisement and course selection.
Transfer from MCC

Students planning to transfer to another institution should be aware that each institution evaluates, accepts and applies transfer courses differently. In order to achieve the most efficient transfer of courses, students are encouraged to consult a counselor or advisor in the MCC Student Support Services Office as well as contact the transfer advisor at the receiving institution as soon as possible after enrolling at MCC.

Curricular guides for many degree programs at Michigan colleges and universities are available through the Student Support Services Office at MCC. Students intending to transfer can follow the transfer curriculum guide designed specifically for the major and institution in which they plan to enroll.

Students who are uncertain about the college or university to which they intend to transfer are encouraged to follow initially the guidelines for earning the MACRAO or UTA endorsement or to follow the degree requirements for earning an associate degree in arts and sciences. Students who transfer credit to MCC are encouraged to meet with a counselor or advisor to plan any subsequent transfer.

Students planning to transfer to another community college or an out-of-state institution should contact the Admissions Office at that institution to plan their course work at MCC.

PREPARING TO TRANSFER

Students should apply early for admission to the institution they have selected. An application fee may be required. Many institutions have application deadlines and a limit on the number of new students to be admitted to a specific program. A certain cumulative grade point average earned at the community college and/or the SAT or ACT are usually admission requirements at senior institutions. There may also be additional admission or program requirements.

Students must submit a written request for an official copy of their MCC transcript to the Enrollment Services Office. Transcripts must be sent directly from MCC to the receiving institution. Upon admission, the receiving institution will perform a credit evaluation of the transcripts.

Transfer students need to be aware of all deadlines for payment for tuition and fees, residence hall reservations, financial aid and scholarships, placement testing, etc. Students applying for financial aid, whether or not they receive financial aid at MCC, must contact the financial aid office at the receiving institution and follow its process for requesting a financial aid transcript. Academic scholarships awarded by senior institutions may be available to students transferring from MCC. Contact the Student Support Services Office for information on availability and application deadlines.

Before transferring, students are encouraged to visit the institution to which they plan to transfer during its daytime campus hours. Campus tours are often available if arranged ahead of the visit. Students should meet with an admissions representative either on their campus or when they visit MCC's campus.

MACRAO/UTA STATEWIDE COLLEGE AND UNIVERSITY ARTICULATION AGREEMENT

In 1973, the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) Transfer Agreement was established to improve transfer student articulation between two-year and four-year colleges in Michigan. MCC is a participant in the agreement. This agreement stipulates that 30 semester hours of 100-level and above, compatible, general course work will be granted smooth transferability to participating colleges and universities and these credits will be applied toward a student’s general education requirements at participating Michigan institutions. Some institutions have provisions to acceptance of the MACRAO endorsement.

Students completing the 30-credit-hour program outlined here must request their transcript to be stamped “MACRAO Agreement Satisfied.” Students should make this request to the Enrollment Services Office.

a. English Composition—6 semester credit hours
   ENGL100, ENGL101 or ENGL250.
b. Science and Math -- 8 semester credit hours
   BIOL100, PHYS101, BIOL103, CHEM105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL203, BIOL208, CHEM220, CHEM221, PHYS230, PHYS231, MATH159, MATH190, MATH250 or MATH251.
   At least one course must have a laboratory. Courses taken must be in more than one subject area.

   c. Social Science -- 8 semester credit hours
   POLI110, SOCI111, ECON215, ECON216, PSYC220, PSYC221, PSYC225, SOC1230, SOC1235, POLI240, HIST250, HIST251, HIST255, HIST257 or ANTH260.

   d. Humanities -- 8 semester credit hours
   Courses must be taken from more than one subject area. However, taking HUMN200 and HUMN201 will meet this requirement since the course content covers several subject areas.
   MUSI101, MUSI110, HUMN200, HUMN201, PHIL220, PHIL221, HUMN270, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, SPAN130, SPAN131, FREN120 or FREN121.

   Students completing the associate in arts and sciences degree should contact a counselor or advisor or the Director of Enrollment Services to see which courses will meet the degree requirements.

   Contact a counselor for more information. The information provided may change as four-year institutions change their degree requirements. Students should contact the admissions office at the four-year college or university they expect to attend.

   The Universal Transfer Agreement is similar to the MACRAO agreement except that MACRAO is for two-year to four-year schools while the UTA also allows transfer from four-year to two-year schools and four-year to four-year schools. It also requires that a grade of at least a C (2.00) be earned in all of the core classes. When transferring to a community college, the UTA applies only to those degrees designated as transfer degrees, such as MCC's associate in arts and sciences degree.

   Students who feel they have met the requirements for one or both of these agreements should fill out a MACRAO/UTA form, available in the Enrollment Services Office, prior to transfer.

   This information cannot be considered an agreement or contract between the individual student and MCC or its staff.

   **Transfer to MCC**

   **POST-SECONDARY CREDIT COURSES**

   Students must enroll at MCC to qualify to transfer credits. Only official transcripts will be evaluated. Most courses are accepted in transfer for a corresponding MCC course. If a course has no equivalent at MCC, it might be used as an elective. Credits, not grades, are accepted for courses in which a grade of C or better was earned. When a student has received a two- or four-year degree from another institution, an evaluation is done if the student makes the request. Because MCC is based on a semester system, two-thirds credit is granted for courses earned at an institution which is on terms or quarters. It is the student's responsibility to follow up on the credit evaluation. The student will receive a copy of the evaluation and a copy will be placed in the student's file with the transcript. A student may request a review of the evaluation. Questions regarding the evaluation should be directed to the Director of Enrollment Services.

   **CORRESPONDENCE COURSES**

   Generally, credit is not granted by MCC for correspondence course work. Exceptions are limited to United States Armed Forces instruction courses and courses from regionally accredited institutions of higher learning. To qualify for correspondence credit, students must forward official transcripts to the Enrollment Services Office. Transcripts will be evaluated by the appropriate instructional administrator and a $5 fee will be charged for each credit granted.

   **CREDIT OR WAIVER BY EXAMINATION**

   Practical experience is often equivalent to knowledge that would be gained through course work. Students wishing to receive a waiver or credit for courses in which they feel competent and for which an exam is offered may opt for credit or waiver by examination.

   a. **Credit by examination:** After enrolling in a course and successfully completing the exam, students are awarded an S grade and full credit for the course. Financial aid does not pay for credits earned by exam.
b. Waiver by examination: Upon successful completion of the exam, the requirement for taking that course will be waived and a $5-per-credit-hour examination fee will be charged. This is only available for a specific course once and is not available for a course in which a student has already received a grade. If the waiver is approved, the student will be required to take the equivalent number of credit hours in other course work.

COLLEGE LEVEL EXAMINATION PROGRAM CREDIT
MCC students who have taken part in the College Level Examination Program (CLEP) and ranked in the 50th percentile or higher on a subject area test may request credit for the course. A $5-per-credit-hour fee is charged for each credit granted. To qualify for CLEP credit, students must submit an official transcript of the test results to the Enrollment Services Office. The appropriate instructional administrator will evaluate the examination results and any credit granted will be noted on the student’s transcript.

ADVANCED PLACEMENT CREDIT
MCC students who have taken part in the College Board Advanced Placement Program and earned AP examination scores of three or above may receive MCC credit.

Students must present a certificate indicating a test score of three or above to the Director of Enrollment Services. The appropriate instructional administrator will evaluate the test results and determine suitable credit to be given. Students will pay $5 per credit hour assigned to their transcripts. Advanced Placement credits will be assigned an S grade and will not be calculated as part of the overall GPA.

ARTICULATION CREDITS
MCC recognizes that some course work completed in high school may be equivalent to basic courses offered at the college. Written agreements to grant college credit in specific programs for high school courses have been reached with several school districts.

To receive credit, students must maintain a B average in the articulated program and receive a written recommendation from the appropriate high school instructor. A maximum of 16 hours can be earned this way. Credit is granted when students complete six hours of MCC course work with a C average in the discipline for which college credit is being granted. After these credits are posted, students may use them for other degrees if they change programs or get a different degree. There is no charge for the credit hours granted. Students must enroll at MCC, take the appropriate courses no later than the beginning of the third year following high school graduation, and formally request credit. Credit is awarded through notation (no grade is given) upon completion of the requirements.

Students must submit a written recommendation from an instructor to the Enrollment Services Office. When the six hours of MCC course work has been completed, students must notify the Director of Enrollment Services.

CREDIT FOR TRAINING PROGRAMS
a. Armed Services Basic Training: Students who have successfully completed military basic training will be granted up to four credit hours of physical education credit after they formally request credit for physical education and submit to the Director of Enrollment Services Form DD214 indicating the successful completion of basic training.

b. Other Training Programs: Students who have successfully completed military course work may receive transfer credit upon application according to the appropriate ACE Guide. The MOS number by itself is not recognized for transfer credit. A $5 fee is charged for each credit granted.

To earn credit for training or military course work, students must forward official transcripts to the Enrollment Services Office. The transcripts will be evaluated for credit by the appropriate instructional administrator.
MCC offers the associate degree in arts and sciences, applied arts and sciences, and general studies. Specific curriculum requirements for each of the applied arts and sciences degree programs are found on pages 40 through 61. Students planning to transfer to a four-year college or university are advised to consult with a counselor during their first semester.

ASSOCIATE DEGREE IN ARTS AND SCIENCES

Students seeking the associate degree in arts and sciences may choose to concentrate their studies in a number of different content areas. A counselor should be consulted especially in those cases where the student plans to transfer to a four-year college or university. Students who desire to have an area of concentration noted on their transcript upon graduation may choose from the following areas, or may work with a faculty member to create a program in an area not listed.

Art
Biological Science
Early Childhood Development
Language Arts
Physical Education
Physical Science
Pre-Elementary Education
Social Science

Guidelines for a degree in arts and sciences

This degree outline includes the general education core requirements and meets MACRAO transfer guidelines. See page 9 for more information.

<table>
<thead>
<tr>
<th>COURSE TITLES</th>
<th>COURSE NUMBR</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities I</td>
<td>HUMN 200</td>
<td>4</td>
</tr>
<tr>
<td>Humanities II</td>
<td>HUMN 201</td>
<td>4</td>
</tr>
<tr>
<td>Freshman English I</td>
<td>ENGL 100</td>
<td>3</td>
</tr>
<tr>
<td>Freshman English II</td>
<td>ENGL 101</td>
<td>3</td>
</tr>
<tr>
<td>Biological Science*</td>
<td>BIOL 100</td>
<td>4</td>
</tr>
<tr>
<td>Physical Science*</td>
<td>PHYS 101</td>
<td>4</td>
</tr>
<tr>
<td>Intro. to Social Science I</td>
<td>POLI 110</td>
<td>4</td>
</tr>
<tr>
<td>Intro. to Social Science II*</td>
<td>SOCI 111</td>
<td>4</td>
</tr>
<tr>
<td>Computer Literacy***</td>
<td>CMIS 101</td>
<td>2</td>
</tr>
<tr>
<td>Elementary Algebra***</td>
<td>MATH 100</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED HOURS 36
TOTAL ELECTIVE HOURS 24
TOTAL HOURS REQUIRED FOR DEGREE 60

ARTS & SCIENCES REQUIRED HOURS 13-14

*OR (with sufficient science background) two other science laboratory courses
**OR two other courses from ANTH, ECON, GEOG, HIST, POLI, PSYC or SOCI.
***General education requirements may also be met through competency testing or successful completion of higher level course work. Please see the section on credit or waiver of credit by examination on page 10 of this catalog.
****Assumes enrollment in CMIS 101 and MATH 100.
ASSOCIATE DEGREES IN APPLIED ARTS AND SCIENCES

Accounting
Business Administration
Business Information Systems
Cosmetology Management
Criminal Justice
Criminal Justice/Corrections
Drafting Technology
Early Childhood Development
Electronics Technology
Emergency Medical Technology
Executive Secretary
Food Service Technology
Industrial Technology
Information Systems
Legal Information Systems
Medical Information Systems
Nursing
Paralegal Studies
Plastics Manufacturing Technology
Radiography
Small Business Development/Management

Guidelines for a degree in applied arts and sciences
These degree programs are for students who want to complete a specialized education before entering the job market. Students planning to transfer to a four-year college or university should consult with a counselor to determine whether it is best to select courses other than those listed to maximize transferability of credits. Included in the specific degree program requirements listed on pages 40 to 61 are the following general education core requirements that every applied arts and sciences student must fulfill.

<table>
<thead>
<tr>
<th>COURSE TITLES</th>
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<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
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<td>3</td>
</tr>
<tr>
<td>Intro. to Social Science I</td>
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</tr>
<tr>
<td>Humanities I</td>
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</tr>
<tr>
<td>Computer Literacy*</td>
<td>CMIS 101</td>
<td>2</td>
</tr>
<tr>
<td>Elementary Algebra*</td>
<td>MATH 100</td>
<td>4</td>
</tr>
<tr>
<td>A laboratory science course</td>
<td></td>
<td>3-5</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED HOURS 20
TOTAL HOURS REQUIRED FOR DEGREE 60

Nursing students should see page 56 for degree requirements.

*General education requirements may also be met through competency testing or successful completion of higher level course work. Please see the section on credit or waiver of credit by examination on page 10 of this catalog.

**Assumes enrollment in CMIS 101 and MATH 100.
ASSOCIATE DEGREE IN GENERAL STUDIES

The associate degree in general studies is intended for students interested in obtaining a degree with customized content reflective of personal college-level interests that are not necessarily focused on transfer or occupational interests. General studies degree students must successfully complete the general education core requirements. Students should consult a counselor for program planning assistance.

Guidelines for a degree in general studies

<table>
<thead>
<tr>
<th>COURSE TITLES</th>
<th>COURSE NUMBER</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>ENGL 100</td>
<td>3</td>
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<td>4</td>
</tr>
<tr>
<td>A laboratory science course</td>
<td></td>
<td>3-5</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED HOURS** 20
**TOTAL HOURS REQUIRED FOR DEGREE** 60

*General education requirements may also be met through competency testing or successful completion of higher level course work. Please see the section on credit or waiver of credit by examination on page 10 of this catalog.

**Assumes enrollment in CMIS 101 and MATH 100.

MULTIPLE DEGREE PROCEDURE

Students who have received or are earning an AAS or an AAAS degree may not apply for an associate degree in general studies.

To receive an associate degree in applied arts and sciences, students must complete the degree requirements for that program. The completion of a certificate program coupled with general education courses is not sufficient to qualify.

Students may receive more than one AAAS degree if they fulfill the requirements specified by the department. However, students may earn only one AAAS degree within a department. Students may complete more than one area of concentration within a department. Each area of concentration will be noted on the degree (e.g., students may earn one degree showing both medical information systems and legal information systems, but will not be awarded two separate degrees). While a second degree will not be granted, an area of concentration completed after an AAAS degree is issued will be noted on the transcript.

CERTIFICATE PROGRAMS

Certificate programs may transfer to related associate degree programs upon completion of additional course work.

- Computer Aided Design/Drafting
- Computer Repair
- Cosmetology
- Criminal Justice/Corrections
- Customer Energy Specialist
- Drafting
- Food Service Technology
- Information Processing Assistant
- Legal Office Assistant
- Machine Tool Operation
- Medical Office Assistant
- Practical Nursing
- Office Assistant
- Plastics Technology
- Small Business Development/Management
- Welding Technology

TRAINING PROGRAMS

Training programs may lead to certification by outside agencies.

- Allied Health
  - Emergency Medical Technician
  - EMT Specialist/Paramedic
  - Nurse Assistant
- Apprenticeship Training
- Child Development Associate
- Criminal Justice/Corrections
MCC District Residents

Tuition ...................... $49.90 per credit hour
Fees ........................ $1.50 per credit hour to a maximum of $18 per semester

Residents of the MCC district have lived in the Carson City/Crystal, Central Montcalm, Greenville, Lakeview, Montabella, Tri County or Vestaburg public school district for at least six months at the time of enrollment. Students are required to furnish proof of residency such as a driver's license or tax receipts.

Michigan Non-District Residents

Tuition ...................... $76.55 per credit hour
Fees ........................ $1.50 per credit hour to a maximum of $18 per semester

All students in MCC’s prison education programs are considered Michigan Non-District Residents.

Out-Of-State Residents

Tuition ...................... $97.70 per credit hour
Fees ........................ $1.50 per credit hour to a maximum of $18 per semester

Other Fees

Contact (Lab) Fee* ... $24.95 per contact hour
Materials Fee .......... designated in the credit schedule
Technology Fee ....... $4 per credit hour

*Some courses have lab or contact hours for which there is a charge of $24.95 for each hour. In the semester course schedules, these are shown in parentheses immediately following the credit hours.

Adults aged 60 or older who live in the MCC district may take MCC credit courses tuition free. Seniors who live outside the MCC district may take MCC credit courses for the difference between the in-district and non-district rates. All seniors are required to pay fees.

Refund Policy

1. Fees are not refundable.
2. Tuition is 100% refundable during the enrollment and drop/add period. No refunds of tuition will be made for withdrawals after the end of the enrollment period.

First-time MCC Student

Title IV Refunds

This policy applies to students receiving Title IV funds during their first semester of attendance at MCC who have completely withdrawn during the first 60% of that semester. The refund is determined by dividing the total number of weeks of the enrollment period for which the student was charged into the number of weeks remaining in that period at the time the student withdraws. The refund is less any charges owed by the student for the period of enrollment for which the student was charged and an administration fee of 5% of the tuition and fees or $100, whichever is less.

Returning MCC Student

Title IV Refunds

This policy applies to returning students receiving Title IV funds at MCC who have completely withdrawn (or quit attending) during the first 50% of the semester. The refund is determined by the following chart:

<table>
<thead>
<tr>
<th>Withdrawals</th>
<th>Tuition Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>First week of classes</td>
<td>100%</td>
</tr>
<tr>
<td>After first week of classes and up to 25% of period</td>
<td>50%</td>
</tr>
<tr>
<td>Between 25% and up to 50% of period</td>
<td>25%</td>
</tr>
<tr>
<td>After 50% of period</td>
<td>0%</td>
</tr>
</tbody>
</table>

The refund is less any charges owed by the student for the period of enrollment for which the student was charged and an administration fee of 5% of the tuition or $100, whichever is less.
Payment of Tuition and Fees

1. Tuition and fees are due and payable at the time of registration.

2. The college will accept Visa, Discover and MasterCard.

3. Students who will receive financial aid through the college must present a form from the Financial Aid Office to the Business Office to complete enrollment. Any difference between aid and total tuition will be subject to the credit terms described below. If financial aid is not forthcoming, the balance is due at the time of notification. No refunds will be granted after the drop/add deadline.

4. Short-term credit will be available upon application. Credit references may be requested.

Credit Terms

$1 - $150 ..... Paid in full
$151 - $200 ..... 50% down, *balance plus $5 handling fee due in 30 days
$201 - $500 ..... 60% down, *50% of balance due in 30 days, total plus $10 handling fee due in 60 days

*Financial aid will count towards down payment.

6. Failure to pay as scheduled will result in the withholding of grades, certificates and degrees. Graduating students will not be allowed to participate in graduation ceremonies.

7. Collection processes will be initiated for failure to pay.

Tuition and fees are subject to change.
Application for Financial Aid
MCC attempts to assist students with their expenses by constructing a package of grants, loans, scholarships and work opportunities. The amount awarded through each program depends greatly upon an analysis of the applicant’s financial situation. For this reason, students wishing to participate are required to complete a Federal Application For Student Aid (FAFSA) and an MCC Financial Aid Application.

Information about all forms of financial aid is available in the Financial Aid Office. Entering freshmen are encouraged to submit a financial statement and application as early as possible in their senior year of high school. For maximum award consideration, all information should be submitted by returning students by March 15 and first-time freshmen by February 15.

Documentation Required Prior to Payment of Financial Aid
Students are not eligible to receive financial aid until the following documents are on file in the Financial Aid Office.

- Application for Admission
- Proof of high school graduation
- Financial aid transcripts from all colleges or universities previously attended
- Student Aid Report and necessary documentation to complete verification
- Proof of residency for Michigan financial aid recipients
- Release to transfer aid to student account
- Verification of Attendance Form
- Copy of social security card
- Financial aid award letter

Loan Default Policy
Students found in default of Title IV loans or owing a Title IV refund to any college will not be eligible to receive financial aid. Academic transcripts will not be released to students who are found in default on Title IV federal loans or who owe any Title IV refund to MCC.

Enrollment Status
To participate in financial aid programs, students must enroll for a minimum of six semester hours in an eligible degree program. Exceptions to this requirement are the Michigan Adult Part-Time Grant and the Pell Grant.

Method and Frequency of Financial Aid Payments
Money from all grants will be transferred to student accounts no earlier than one week after the drop/add period.

Attendance Verification Forms must be signed by each instructor for each class in which the student is enrolled. If a student is enrolled in a class that has a late start date, the student must be in attendance of enough regular start classes to prove at least half-time attendance. If attendance is not yet at half-time, refund of grant checks will be held until attendance verification is proven.

Refunds from grants will be made by check at the time there is a credit balance on the student's account and the Attendance Verification Form has been completed and returned to the Financial Aid Office.

Loan money will be disbursed to student accounts no earlier than 30 days after classes begin. Refunds from loans will be made immediately by check when there is a credit balance on the account and the Attendance Verification Form has been submitted to the Financial Aid Office.

Loan applications will be processed so disbursement dates will coincide with this policy.

Montcalm Community College Title IV Refund Distribution Policy
MCC refunds Title IV funds first to the Federal Stafford Loan Program, then to the Supplemental Educational Opportunity Grant and then to the Pell Grant program.
Student Budget and Award Packaging
The sample budget below includes the major expenditures that may be incurred by MCC students during the 1998-99 academic year. It is used by the Financial Aid Office to calculate a student's financial need.

DEPENDENT STUDENTS
(This is also used for determining need for Michigan Competitive Scholarship recipients.)

Tuition and fees
(based on in district, full time) $1,397
Room and board $2,895
Books and personal $1,180
Travel $1,030
Technology Fee $112

TOTAL $6,614

INDEPENDENT STUDENTS
Tuition and fees
(based on in district, full time) $1,397
Room and board $7,688
Books and personal $2,232
Travel $1,030
Technology Fee $112

TOTAL $12,459

Change of Address or Financial Circumstance
Financial aid recipients must inform the Financial Aid Office of changes in address or financial circumstances.

Citizenship and Residency Requirements
Federal financial aid is restricted to US citizens and qualified aliens. State of Michigan aid is restricted to those having continuous residency in the state for 12 months prior to enrollment.

Types of Financial Aid Available
Scholarships are nonrepayable money usually based on academic performance or demonstrated need.

Grants are nonrepayable money usually based on demonstrated need.

Loans are money that must be repaid after students leave college or enroll less than half time.

Employment is part-time work on and off campus. Evidence of demonstrated financial need is sometimes required. The total hours a student works are determined by financial need. Students are paid every two weeks.

Sources of Financial Aid
FEDERAL PROGRAMS
Federal Pell Grant: This program offers students meeting specified need requirements grants up to $3,000. It is paid in proportion to the number of credit hours for which the student is enrolled. Students are eligible until completion of the first baccalaureate degree.

Federal Supplemental Educational Opportunity Grant (SEOG): This program offers students with need grants up to $4,000. Normally, it may be used until completion of the first baccalaureate degree.

Federal College Work Study (CWS): This program offers students with financial need work on or off campus to help meet their educational expenses. Jobs are arranged after considering the amount of the award and the student's class schedule. Students are paid bi-weekly.

Federal Stafford Loan: A student may obtain a federally insured loan through an approved local financial lending institution. The federal government subsidizes interest on the subsidized Stafford Loan, based on financial need, while the student is enrolled at least half time. The federal government does not subsidize interest on the unsubsidized Stafford Loan which is not based on need. First-year students may borrow up to $2,625 per academic year. Second-year students may borrow up to $3,500 per academic year. The maximum cumu-
lative loan amount is $23,000. Loans are paid in proportion to the number of credit hours for which the student is enrolled.

The interest rate on both subsidized and unsubsidized loans for new borrowers is variable and capped at 8.25%. Previous borrowers should review their promissory notes for repayment terms.

Students must be enrolled at least half time and attending classes regularly to be eligible to receive a loan disbursement. Students must be in regular attendance at the time the refund is disbursed. An Enrollment Verification Form must be submitted to the Financial Aid Office before payment is made. If verification is not provided, the check is returned to the lender.

To receive a subsidized Stafford Loan, the loan plus other financial aid being received from MCC may not exceed the student's total need for the academic year. To receive an unsubsidized Stafford Loan, the loan cannot exceed the student's total budget for the academic year.

STATE PROGRAMS
Michigan Competitive Scholarships: Scholarships of up to $1,200 are awarded annually to state resident college freshmen whose American College Testing (ACT) Program scores qualify them and whose Financial Aid Applications show need. Undergraduate students may renew this scholarship for up to the equivalent of 10 semesters by maintaining eligibility.

Michigan Work-Study Program: The program is available to Michigan residents who show financial need as work on or off campus to help meet educational expenses.

Michigan Independent Part-Time Grant: This grant is available to independent part-time (taking 3 to 11 credit hours) students showing financial need who have been Michigan residents for at least 12 months prior to enrollment. Students must have been out of high school (other than GED or adult education) for at least two years. The maximum grant is $600 per year not to exceed 24 months of total eligibility.

Michigan Educational Opportunity Grant (MEOG): This grant provides assistance for needy Michigan residents who are enrolled at least half time at Michigan public colleges and universities. Grants up to $1,750 per year are available.

Michigan Tuition Incentive Program (TIP): This program pays tuition and fees at the in-district rate. Students under age 20 who graduate from high school or obtain a GED and who are from lower-income families are eligible. Applications are available from the Financial Aid Office, local Family Independence Agency offices and local high schools.

Michigan Indian Tuition Waiver: This program provides free tuition for North American Indians in public colleges or universities. Applicants must be certified by their tribal association and verified by the Michigan Commission on Indian Affairs to be not less than 1/4 quantum blood Indian.

MCC-FUNDED PROGRAMS
Area Adult and Alternative High School Student Scholarship
Edward Reddix Scholarship
Louise Buescher Scholarship
MCC Board of Trustees Scholarship
MCCF Herbert N. Stouteenburg Scholarship
Mildred Farmer-Angwin Scholarship
Mr. & Mrs. John Hathaway Scholarship
Nancy Fox Scholarship
Stanley & Blanche Ash Scholarship

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MCC Board of Trustees Scholarship
MCCF Herbert N. Stouteenburg Scholarship
Mildred Farmer-Angwin Scholarship
Mr. & Mrs. John Hathaway Scholarship
Nancy Fox Scholarship
Stanley & Blanche Ash Scholarship

Contact the Financial Aid Office or your high school counselor for information.

OTHER PROGRAMS
The Perkins Single-Parent/Homemaker/Displaced Homemaker Program provides financial assistance and support services to single parents, displaced homemakers or single, pregnant women who are enrolled in an eligible occupational program.

The Sex-Equity Program provides financial assistance and support services to students enrolled in an eligible occupational program which is nontotalional to their gender.
Financial Aid

The Family Independence Agency and Labor departments provide public assistance and training programs that can be used by students under certain circumstances.

As part of staff development plans and benefit packages, many employers reimburse their employees and their dependents for successful completion of college courses.

A variety of programs and organizations provide scholarships and financial assistance to those meeting specific qualification criteria. Contact local organizations offering scholarships, a high school guidance counselor, or the Financial Aid Office for information.

Job Training Partnership Act (JTPA) provides education benefits to students from low-income families or dislocated workers.

State and federal funding is tentative at the time awards are made. MCC cannot guarantee substitute awards if anticipated sources of assistance do not materialize. The amount of financial aid is contingent upon full-time enrollment for each semester awarded on the award notice. If enrollment changes, the award is adjusted accordingly.

Maintaining Satisfactory Progress for Financial Aid Eligibility

Students receiving financial aid at MCC must maintain satisfactory academic progress in accordance with the guidelines listed below. The federal and state governments mandate the establishment and enforcement of a satisfactory academic progress policy for institutions disbursing their financial aid funds to students. Students are in good standing for financial aid if they meet the following standards and are accepted for continued enrollment under the academic policy. All withdrawals, incompletes, repetitions, and E or U grades are evaluated into the percent completion section of the policy.

This policy is applied after a student has been enrolled two semesters and has registered for at least 12 MCC credit hours.

When measuring academic progress, all credit hours for which the student has incurred a financial obligation are considered, including the hours for which the student has personally paid.

In order to continue to receive financial aid funding, students must be progressing at a rate that would allow completion of the certificate or associate degree being pursued within a time frame which, by federal regulation, is 150% of the published credit hour requirements of the program. For example, if an associate degree program requires 60 credits, it must be completed in a maximum of 150% of 60 credits, including both attempted and completed credits. Multiply the number of credits required in the program by 1.5 to determine the maximum number of credits.

Students also must maintain a minimum grade point average and successfully complete a percentage of all credit hours attempted based on the following charts.

<table>
<thead>
<tr>
<th>Credit Hours Attempted</th>
<th>Student Must Successfully Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-15</td>
<td>50%</td>
</tr>
<tr>
<td>16 and above</td>
<td>70%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cumulative Semester Hours</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 or more</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Each May, the Financial Aid Office reviews the progress of students. Those not making satisfactory academic progress are sent a letter stating they are no longer eligible for financial aid. Students denied financial aid because of failure to make satisfactory academic progress may appeal the denial in writing to the Financial Aid Office if there are mitigating circumstances. The appeal must describe in detail all circumstances which the student believes are relevant to his or her inability to meet the satisfactory academic progress requirements. Students must submit any supporting documents. Students who attain less than a 2.0 GPA at the end of their first enrollment period are placed on academic probation.
A Satisfactory Academic Progress Review Committee will assess the appeal and determine if it will be approved. The student will be advised in writing of the committee's decision. A student who appeals and is reinstated on a probationary status must meet all criteria in the reinstatement notification. If the appeal is approved, the student will receive an additional probational semester of aid during which he or she must meet the criteria stated in the response. At the end of the probationary semester, grades and other requirements will be reviewed to determine if the student will continue on probation until the satisfactory academic progress policy requirements are met. If a student becomes ineligible for financial aid due to a lack of satisfactory academic progress and no appeal is submitted or the appeal is denied, he or she may regain eligibility by meeting the satisfactory academic progress policy without the benefit of financial aid at MCC. To do this, the student must enroll and complete the courses which are applicable to his or her program of study, and the student must achieve the number of credit hours and the necessary grade point average to meet the satisfactory academic progress policy.

Veterans' Information
For more information about VA education benefits, contact the Financial Aid Office.

Students who are eligible for veterans' benefits while attending MCC must submit an application for VA benefits and a copy of the DD214 or an original Basic Notice of Eligibility Form #22-2384. Processing of benefits takes approximately six weeks.

STANDARDS OF ACADEMIC PROGRESS
Satisfactory pursuit of study or training toward completion of an educational or vocational goal must be maintained. Students receiving VA benefits will be certified only for classes which are required for their declared program of study. Elective courses in the program will be certified. No more than 60 required credits will be authorized.

A change of program form must be submitted to the VA to change a program of study. The forms are available in the Financial Aid Office.

Transfer students who plan to receive VA benefits must provide the Director of Enrollment Services with copies of official transcripts from other colleges attended because the VA requires MCC to report the number of credits accepted in transfer. After one year of enrollment, a veteran will not be certified if official transcripts have not been received by MCC.

Students receiving VA benefits must notify the Financial Aid Office of change in enrollment or attendance during the semester. Failure to do this could result in an overpayment which the VA will require the student to repay. VA regulations state that any reduction in rate due to withdrawal from a class is effective retroactive to the beginning of the semester unless mitigating circumstances are documented. Mitigating circumstances are those which are normally, but not necessarily, beyond the student's control.

Students receiving VA benefits who receive a failing grade must notify the Financial Aid Office, in writing, of the last date of class attendance. Failure to provide this information will result in the VA being notified that the last date of attendance was the first day of the semester.

Unsatisfactory progress can stop VA benefits. The MCC academic dismissal policy is on page 27 of this catalog. Students receiving VA benefits who are placed on academic probation for two consecutive semesters or dismissed for unsatisfactory progress will not be recertified for benefits until a minimum accumulated 2.0 grade point average has been achieved at the student's expense. An appeal may be made to the Director of Financial Aid for special circumstances. The VA will be notified when a student remains on academic probation for two consecutive semesters or is dismissed for unsatisfactory progress. Students receiving VA benefits who receive incomplete or unsatisfactory grades are allowed one year from the end of the semester to complete the course and receive a grade. If the class is not completed in the year allowed, the VA may require repayment of funds received for the course.
Registration
Registration includes academic advisement, enrolling in courses and paying tuition and fees. Registration dates, times and options are outlined in each semester schedule.

Counseling
Licensed professional counselors are available to assist students. Course advisement, testing and interpretation, special needs, tutoring, career exploration and career decision-making, referrals and other counseling services are available. Appointments may be made by calling the Student Support Services Office at 517/328-1231.

General Information
Emergency procedures, class schedules, lost and found and other general college information topics are handled in the Student Services Office.

ACT/GED Testing
The American College Test (ACT) and General Educational Development (GED) can be scheduled by calling the Student Support Services Office at 517/328-1231.

Records
Grade reports are mailed to students at the end of each semester of enrollment showing grades, hours attempted, hours completed, hours earned, honor points and GPA. To protect the student’s privacy, this information is not given out by telephone. Grade reports will not be released for students who have outstanding financial obligations to MCC or have overdue library materials.

A signed, written request to the Enrollment Services Office is required to release a student’s academic transcript to a third party. The request should include the student’s name and former names used while attending MCC, dates of attendance, and social security number. The first three transcripts are issued free of charge. The fourth and subsequent copies are $1 each.

Unofficial copies of transcripts may be sent to students upon request.

No transcripts will be issued for students who have outstanding financial obligations to MCC.

Career Library
Career information and employment research materials including occupational descriptions, salary estimates, occupational outlook forecasts and employer directories are available to students through the Career Library. Books and videotapes about the job search process, resume writing and interviewing are available for students and alumni seeking employment. Current Michigan college and university catalogs, course transfer equivalency guides and other reference books are available for students planning to transfer to another college or university. The Career Library is located in the Student Support Services Office.

Career Planning Services
Personal career counseling and career interest testing are available to students who are undecided about which college program or career to pursue. Contact the Student Support Services Office for an appointment.

Employment Services
Information regarding full-time and part-time employment, resume-writing assistance and job-search consultation is available to students and alumni through the Student Support Services Office.

Tutorial Services
MCC offers free peer tutorial assistance to students experiencing academic difficulty. Tutoring is available on an individual or group basis. Application information is available from the Special Populations Office.

ASK ME Mentoring Program
MCC is concerned about the experiences, well being, and success of students. The ASK ME Mentoring Program provides support and encouragement and assists students in making the transition to college. Those who feel they would benefit by having a mentor who is familiar with MCC and the services that are available should contact the Dean of Student Services Office at 517/328-1230 for more information.
Disability Services

MCC is committed to providing equal educational opportunities to all students regardless of their disability. The Carl Perkins Act is a federal program that is funded through the department of education. This grant helps qualified MCC students enrolled in two-year, state-approved occupational education programs. Special populations students are those who have academic or economic disadvantages, limited English skills, or physical or emotional disabilities or are enrolled in gender-biased programs.

Support services include academic and career counseling, college and community agency referrals, communication and liaison with instructors, needs assessment, remediation of student's basic academic skills, and registration assistance. Students with disabilities are provided readers, writers/scribes, notetakers, interpreters, instructional aides, visual aids, books on tape, assistance with accessibility and other services necessary to meet individual student needs.

Students with disabilities in need of assistance should contact the Special Populations Office to arrange for necessary support services. In order for the college to provide accommodations, some requests need to be arranged prior to the beginning of the semester.
Student Activities

Student activities contribute to the emotional and physical well-being of students and to their intellectual, cultural, and social development outside the context of the institution's regular instructional program. The programs are funded by a portion of student activities fees.

Clubs
The Student Activities Office sponsors the Art Club, the Drama Club, nursing clubs, the Alpha Tau Alpha honor society, and the Future Business Professionals Club. To establish a new club, potential members must contact the office and follow the guidelines for establishing club status and receiving funds.

Activities
College-sponsored activities include items like club sports, excursions, travelogues, support groups, fund raisers, lectures, intramurals, American Red Cross blood drives, self-help seminars, leadership development, performance groups and alternative breaks (service learning).

Honor Society
Phi Theta Kappa is an international honor society for junior and community college students. There are more than 1,000 PTK chapters. MCC's Alpha Tau Alpha Chapter provides opportunities in leadership, scholarship, fellowship and service. To qualify for membership, students must complete a minimum of 12 MCC credit hours with a minimum 3.5 GPA and have letters of recommendation from two MCC faculty members. Students who have been granted academic amnesty are not eligible for membership. Contact the Assistant Director of Enrollment Services for more information.

ID Cards
Student ID cards are available in the Student Activities Office after the drop/add period each semester. ID cards allow students free use of the gym, pool, and fitness center during scheduled times; to check out recreation equipment; to use the library; and to attend college-sponsored functions.

Lockers
Lockers are available for rent each semester in the Activities Building.
Semester System
Montclair Community College operates on the basis of two semesters per year. The fall semester begins in late August and is completed in December. The spring semester begins in January and ends in May. MCC also offers an accelerated summer session which runs from mid-June to early August.

Classification System
A freshman is a student who has completed less than 25 semester hours of study.

A sophomore is a student who has completed at least 25 semester hours of study, but who has not yet qualified for an associate degree or a certificate.

A full-time student carries 12 or more semester hours of study. An average of 15 hours per semester are required to complete 60 hours in four semesters.

A part-time student carries fewer than 12 semester hours.

Program Planning
In planning course work, students should use counseling services, the catalog, and semester class schedules. Some courses are offered every semester while others are only offered once per year.

Program of Study Selection
Selection of a program of study takes place prior to registration. During the counseling interview, students are advised of specific course requirements necessary for program completion. Exceptions to specific program requirements will be made only by the dean of the appropriate instructional division of the college and must be authorized in writing.

Students who wish to change their program of study must complete a change of program form and follow the program requirements in effect at the time the change is made.

A student may graduate under the MCC catalog in effect at the time of initial registration at MCC or any succeeding catalog with the exception that no student may graduate under the requirements of a catalog that is more than five years old. If program requirements are changed in response to demands of external regulatory agencies or governing boards, students must meet those requirements regardless of the catalog they wish to use to establish other graduation requirements.

Honors
Each semester’s Honors List includes students who complete at least 12 semester hours and attain a grade point average of 3.3 to 3.69. The President’s Honors List includes students who complete at least 12 semester hours with a GPA of 3.7 or higher. Part-time Honors and President’s Honors lists are based on the same GPAs and include students who complete at least six credits in one semester. Students whose accumulated GPA is 3.3 or higher at the time of graduation will have honors or high honors noted on their academic transcript.

Class Attendance
Students are expected to attend all classes in which they are registered. Absence from classes shall not relieve students from the responsibility to complete assigned work.

Grading System
Academic achievement is appraised and recorded by the following system of letter grades:

<table>
<thead>
<tr>
<th>GRADE</th>
<th>HONOR POINT VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
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<tr>
<td>B-</td>
<td>2.7</td>
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<td>C+</td>
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<td>C-</td>
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<td>D</td>
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<td>0.7</td>
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<tr>
<td>E</td>
<td>Failure</td>
</tr>
<tr>
<td>WP</td>
<td>Withdrew while passing</td>
</tr>
<tr>
<td>WF</td>
<td>Withdrew while failing</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>V</td>
<td>Audit</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory completion</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory completion</td>
</tr>
</tbody>
</table>
Incomplete grades are awarded when students cannot complete required coursework by the close of a semester for reasons beyond their control. An I grade indicates the instructor’s belief that the student will receive a passing grade when the requirements have been fulfilled.

Incomplete grade forms are available in the Enrollment Services Office and must be filled out and signed by the student and the instructor. The following procedure is observed:

1. An I grade is entered on the student’s record when a course is incomplete at the end of a scheduled semester.

2. An I grade remains without alteration until course requirements are satisfied and warranted in writing by the instructor to the Director of Enrollment Services or until the deadline for completion has passed.

3. An I grade is not averaged with other grades to establish a grade point average.

4. Students receiving Veterans’ benefits who receive an I grade have one year to complete the course without repaying the VA for the class.

AUDIT applies when a student pays tuition for a course but is not required to complete assignments or examinations. Audit status must be declared in writing at the time of registration.

Students who are REPEATING A COURSE for which a grade other than W or I was given must complete a course repeat form in the Enrollment Services Office. The higher grade earned for the course will be computed in the GPA. Credit and financial aid will be given only once for a course. An equivalent course taken at another institution will not remove the MCC equivalent from the MCC transcript.

S (satisfactory completion) and U (unsatisfactory completion) grades are used only for the following courses: CRIM115, DVED120, CMIS100, DVED150, DVED151, DVED152, DVED153, DVED160, DVED161, DVED162, DVED163, DVED170, and DVED171. An S grade will also be given when a student tests out of a course for credit.

Assigning of grades is the complete and irrevocable responsibility of each instructor.

Dropping and Adding Classes
After registration, students may drop or add classes during the time period designated in the class schedule, approximately 8 to 10 days during fall and spring semesters.

1. To officially drop or add classes, students must fill out a Drop/Add Form in the Enrollment Services Office.

2. After completing the Drop/Add Form, students must go to the Business Office for a new copy of their schedule and make tuition adjustments if necessary.

It is important to officially drop or add in order to receive proper course credit.

Withdrawal Procedures
1. To discontinue a class after the Drop/Add period, students must obtain a Withdrawal Form from the Enrollment Services Office, complete the required information and present the form to the instructor.

2. To approve the withdrawal, the instructor will sign and date the form, indicate the grade of WP or WF, return a copy to the student, and present the form to the Enrollment Services Office prior to the final day of class.

Tuition and fees will not be refunded for withdrawal.

Graduation Requirements
To be eligible for graduation, candidates for degrees and certificates must:

1. Complete course and credit-hour requirements as outlined in the catalog. A minimum of 60 credits is required for an associate degree and 30 credits for a certificate. All course substitutions or waivers must be in writing and a copy must be in the student’s academic file.
2. Maintain an overall GPA of 2.0 or higher. Nursing students must meet grade requirements shown in the nursing handbook.

3. Earn a minimum of 24 credits for an associate degree or 40% of the total credits required for a certificate while enrolled at MCC.

4. Be enrolled at MCC during the semester requirements are completed. Students may appeal this requirement by writing to the MCC Vice President for Instruction.

5. Apply for graduation and pay the graduation fee.

6. Ensure proof of high school graduation or GED certification is on file at MCC.

Students are urged to apply for graduation one semester before the semester in which they expect to complete their program. The Director of Enrollment Services will certify graduation eligibility and inform students of courses still needed, if any.

All students who graduate during the academic year or in the next summer session are invited and encouraged to participate in the annual May commencement ceremony.

Student Leave of Absence
A student who is unable to complete course work due to a serious injury, illness, military commitments or other extreme circumstances involving extended absence from classes may request a leave of absence.

1. The Dean of Student Services is authorized to approve requests in accordance with procedures developed pursuant to this policy.

2. The request must be supported by appropriate documentation, such as a physician's statement or military documentation which verifies that the student is unable to complete the course work at the current time.

3. With approval for a leave of absence, tuition-and-fee credit may be issued where a class grade of C or below or a withdraw grade has been given by the instructor. Tuition-and-fee credit will be issued only with the approval of the Dean of Student Services (and the Director of Financial Aid in cases where the student's account has been paid through Financial Aid).

4. When a student is responsible for his or her own account balance at the time the leave is granted, the amount of any unpaid tuition and fees will be deferred until the leave expires.

5. Should the student decide not to return, he or she will still be responsible for any unpaid balance. At the time the leave expires, regular billing procedures will resume for both returning and non-returning students.

Academic Probation and Dismissal
1. The minimum GPA for making satisfactory progress is 2.00.

2. Students who fall below a 2.00 will be placed on academic probation.

3. Students on academic probation who do not earn at least a 2.00 GPA for their next attempted semester will be subject to academic dismissal.

4. Students on academic probation who earn at least a 2.00 GPA for their next attempted semester, but whose accumulated GPA remains below 2.00, will continue on probation until the accumulated GPA reaches a 2.00 or higher.

5. Students placed on academic dismissal must meet with the Dean of Student Services to be readmitted. They may be required to wait one full semester before re-enrolling.

6. Students who remain on academic probation for two consecutive semesters or who are dismissed for unsatisfactory progress will not be eligible to receive financial aid or veterans' benefits until a minimum 2.00 accumulated GPA has been achieved at the student's expense. Students who feel they have special circumstances may appeal to the Director of Financial Aid for consideration for continued aid or benefits.
7. The Veterans' Administration will be notified when a student receiving VA benefits remains on academic probation for two consecutive semesters or is dismissed for unsatisfactory progress.

8. Transfer students shall be subject to all regulations from the beginning of their enrollment at MCC.

9. Students will be notified by letter when they are placed on academic probation or academic dismissal.

**Academic Amnesty**

Recognizing that not all first-time students are prepared for a successful academic experience, academic amnesty is designed to give a student a reasonable second chance by providing an opportunity to remove a certain portion of course work from grade point average computation.

To qualify for academic amnesty, a student must have an overall GPA of 1.99 or below, and a minimum of three years must have elapsed between the time of the poor academic performance and the granting of the request for academic amnesty.

Academic amnesty will apply to no more than the first 30 credit hours attempted and these 30 hours may not be accumulated over more than the first three semesters of enrollment. Amnesty will apply to all courses taken during the period for which it is granted, regardless of the grade earned. Courses for which the student received a passing grade during this period may be applied toward completion of program requirements but grades for these courses will not be calculated in the student's grade point average.

All courses and grades will remain on the student's transcript with a notation that academic amnesty has been granted for the period approved.

A student for whom academic amnesty has been granted may not receive honors recognition.

Academic amnesty will be granted to a student only once. To apply for academic amnesty, a student should contact the Enrollment Services Office. After applying for amnesty, the student must complete six credit hours with a minimum 2.00 grade point average. Course work being taken at the time of the request for amnesty will not be considered as part of this requirement. Upon completion of these requirements, the student must contact the Director of Enrollment Services to complete the amnesty approval process.

**Family Educational Rights and Privacy Act**

The Family Education Rights and Privacy Act of 1974 provides for the protection of a student's right to privacy of information which MCC has in its possession. It also provides a reasonable guideline for release or disclosure of such information as is required by federal and state law and as is necessary for the effective functioning of the college. MCC accords all the rights under the law to students who are 18 years old or older.

1. Students have the right to inspect and review their educational records and to receive copies of any such records at a minimal cost.

2. Student files are maintained in the Student Services Office and the Director of Enrollment Services is responsible for their upkeep. Information is maintained on previous transcripts and grades while attending Montcalm Community College. Financial aid and Veterans’ records are maintained in the Financial Aid Office. All student services and instructional administration employees have access to these student records. All full-time instructors have access to the records of students attending or students who have attended their classes. National League for Nursing achievement test scores are maintained in the office of the Associate Dean for Health Occupations.

3. Students wishing to inspect their records may do so by contacting the Director of Enrollment Services. Nursing students may inspect the record of their NLN test scores by contacting the Associate Dean for Health Occupations.

4. MCC will not disclose personally identifiable information from students' records without prior written consent except for directory information as defined in the Buckley Amend-
ment Final Regulations Sub Part A99.3. Definitions. Directory information includes the student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of member of athletic teams, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended and other similar information. Students have the right to refuse permission of their inclusion in directory information. Students may request, in writing each semester, that MCC withhold all information pertaining to them.

5. MCC will, for each request and for each disclosure of personally identifiable information, maintain a record. This record may be inspected by the student.

6. Students who believe that information contained in their records is inaccurate, misleading or in violation of their privacy or other rights may request of the Dean of Student Services that their records be amended.

7. Students who experience difficulties in viewing records, receiving copies, affecting amended changes, etc., may request a hearing with the college president and, if their issue remains unsolved, may file their concern with H.E.W.

8. All students will be informed of the policy upon initial registration and copies will be available upon request.

Policy Against Discrimination

MCC complies with applicable federal and state laws prohibiting discrimination, including Title IX of the education amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and the Michigan Handicappers' Civil Rights Act. It is the policy of Montcalm Community College that no person; on the basis of race, sex, color, religion, national origin or ancestry, age, marital status, height, weight, disability or Vietnam-era veteran status; shall be discriminated against in employment, educational programs, activities, or admissions. In addition, arrangements can be made to ensure that the lack of English language skills is not a barrier to admission or participation. MCC Vice President for Administrative Services James Lantz is MCC's EEO Officer/Title IX-Section 504 Coordinator. He can be reached by telephone at 517/328-2111.

Grievance Procedures

The following MCC grievance procedures are based on Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendment Act of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans With Disabilities Act of 1990, and Michigan Handicappers' Civil Rights Act.

SECTION I

If any person believes that Montcalm Community College or any part of the school organization has inadequately applied the principles and/or regulations of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendment Act of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans With Disabilities Act of 1990, and Michigan Handicappers' Civil Rights Act, he or she may bring forward a complaint, which shall be referred to as a grievance, to the local Civil Rights Coordinator at the following address: James D. Lantz, 2800 College Drive, S.W., P.O. Box 300, Sidney, Michigan 48885-0300 and the following telephone number: 517/328-2111.

SECTION II

The person who believes he or she has a valid basis for grievance shall discuss the grievance informally and on a verbal basis with the local Civil Rights Coordinator, who shall in turn investigate the complaint, and reply with an answer to the complainant. He or she may initiate formal procedures according to the following steps.

Step 1: A written statement of the grievance signed by the complainant shall be submitted to the local Civil Rights Coordinator within 5 business days of receipt of answers to the informal complaint. The coordinator shall further investigate the matters of grievance and reply in writing to the complainant within 5 days.
Step 2: If the complainant wishes to appeal the decision of the local Civil Rights Coordinator, he or she may submit a signed statement of appeal to the college President within 5 business days after receipt of the coordinator's response. The President shall meet with all parties involved, formulate a conclusion, and respond in writing to the complainant within 10 business days.

Step 3: If the complainant remains unsatisfied, he or she may appeal through a signed, written statement to the MCC Board of Trustees within 5 business days of receipt of the President's response in step two. In an attempt to resolve the grievance, the Board of Trustees shall meet with the concerned parties and their representative within 40 days of the receipt of such an appeal. A copy of the Board's disposition of the appeal shall be sent to each concerned party within 10 days of this meeting.

Step 4: If at this point the grievance has not been satisfactorily settled, further appeal may be made to the Office for Civil Rights, Department of Education, Washington, D.C. 20201. Inquiries concerning the nondiscriminatory policy may be directed to Director, Office for Civil Rights, Department of Education, Washington, D.C. 20201.

The local coordinator, on request, will provide a copy of the college's grievance procedure and investigate all complaints in accordance with this procedure.

A copy of each of the acts and the regulations on which this notice is based may be found in the coordinator's office.

Code of Student Ethics

Preamble: Students enrolled at Montcalm Community College are expected to conduct themselves as responsible adult men and women at all times. Students are subject to the jurisdiction of the college and civil authorities during their period of enrollment.

Students must follow generally accepted rules of good conduct. Any student behavior which violates these accepted practices, whether or not it is expressly forbidden, may subject the student to penalty. Enforcement of MCC rules and regulations is the responsibility of the Dean of Student Services. The student has the right to appeal any decision through established procedures.

Acts that seriously interfere with the basic purposes, necessities and processes of the academic community or that deny the essential rights of other students, faculty, staff or other citizens of the community will not be tolerated by MCC. Such acts are prohibited and may lead to probation, dismissal from the college and/or civil prosecution. The following rules and regulations are to serve as a guide to student conduct.

LAW

The individual student is responsible for observing the laws enacted by federal, state and local governments as well as the rules and regulations established by MCC.

DEMONSTRATIONS AND ASSEMBLY

No person or persons shall assemble or demonstrate in a manner which obstructs the free movement of persons about the campus or the normal use of college buildings and facilities or obstructs the established operation of MCC.

COLLEGE AND INDIVIDUAL PROPERTY

The property and rights of others are to be respected at all times. Theft of any kind and destruction or mutilation of college or another individual's property are prohibited. Students are expected to use receptacles for trash, cigarette butts, food waste, and food and drink containers.

ALCOHOLIC BEVERAGES AND DRUGS

Any student drinking, under the influence of or possessing alcoholic beverages on college property is subject to immediate disciplinary action. Students shall obey all federal, state and local laws pertaining to the use of drugs of any kind. Failure to obey these laws may result in probation, dismissal from the college and/or civil prosecution.

SMOKING

MCC buildings are smoke free. Students are to adhere to all smoking regulations posted on the campus.
EXPLOSIVES
The possession or use of explosives, firecrackers,
or firearms on college property or at college- or
student-sponsored functions is not permitted with-
out the expressed consent of college authorities.

GAMBLING
Gambling of any kind, on campus or at college- or
student-sponsored events, is prohibited.

CHEATING - PLAGIARISM
All students are expected to be honest in their
studies. Dishonesty in completing assignments,
examinations or other academic endeavors is con-
sidered an extremely serious violation of the rights
of others at MCC and is subject to severe discipli-
ary action. Plagiarism; failure to give credit for
ideas, thoughts or material taken from another; is
cheating.

DRESS
Students are expected to dress appropriately and
in keeping with the adult community of which the
college student is a part. The college reserves the
right to make specific recommendations.

PARKING AND SPEED LIMITS
All students are to park in designated student
parking areas only. Students are to observe posted
speed limits and obey traffic regulations.

RECORDS
Students and prospective students are to give
honest and complete replies to all questions and
requirements included in application forms and
other documents required by MCC. Students are to
keep the college informed of their current ad-
dresses and phone numbers while attending MCC.

GENERAL BEHAVIOR
Behavior considered inappropriate by the larger
society, whether on campus or at a college- or
student-sponsored activity, is subject to immediate
disciplinary action.

PUBLICATIONS
Publications and/or advertisements not approved
by MCC will not be authorized for posting or
distribution on campus. Authorization to post or
distribute materials may be obtained from the Dean
of Student Services.

FINANCIAL RESPONSIBILITY
Students are expected to keep current any financial
indebtedness to the college. Students owing money
to the college for tuition, fees, loans, library fines,
etc., may be denied admission to classes and may
be denied permission to register for a succeeding
semester or summer session until such accounts
are paid. If any accounts are outstanding at the
close of an academic semester or summer session,
the student's grade report and/or official tran-
script will be delayed until such accounts are paid.

CONCLUSION
It is understood that final authority for the Student
Code of Ethics and all regulations rests with the
MCC President and the Board of Trustees.

Provisions for Review of Disciplinary Decisions
Each student at MCC, subject to disciplinary action
as a result of misconduct, shall have the following
recourse to due process.

1. At such time as the Dean of Student Services
has rendered a disciplinary decision, the ag-
grieved student may request in writing a re-
view of the procedures taken by the Dean of
Student Services with the President of the
college within 10 days.

2. In the event the President sustains the decision
of the Dean, the aggrieved student may re-
quest a hearing before the Board of Trustees
by giving notice in writing to the Secretary of
the Board not later than 10 days after the
President's decision is announced.

3. In the event the decision of the Dean of Student
Services is reversed by the President, the deci-
sion of the President shall be binding upon
both parties, unless reversed by the Board of
Trustees.

4. The hearing before the Board of Trustees shall
be conducted so as to assure both parties the
right to counsel of their own choosing, the
right to provide witnesses, the right to question
witnesses, and such other process as may
be necessary to provide coincident exposure
to two points of view.
5. In all cases, decisions rendered by the Board of Trustees, subsequent to a hearing regarding a disciplinary case, shall be final and binding upon all parties.

Substance Abuse Policy and Procedure
The following information is presented in accordance with the Drug-free Schools and Communities Act Amendments of 1989.

STANDARDS OF CONDUCT
It is the policy of Montcalm Community College that the transportation, possession or consumption of an alcoholic beverage or a controlled substance on college property is prohibited.

LEGAL SANCTIONS
Students who illegally use alcoholic beverages or controlled substances on college property face disciplinary action, suspension from the college, and/or prosecution under the law. Any person who illegally sells, provides, transports, possesses, or consumes alcoholic beverages or controlled substances on college property may face immediate arrest and prosecution under applicable federal, state and local laws. Penalties under these laws may include fines, imprisonment, or both.

HEALTH RISKS
Illegal use of alcohol or controlled substances can result in illness, injury or death.

AVAILABLE COUNSELING AND TREATMENT PROGRAMS
All MCC students and employees will have access to substance awareness workshops, seminars, and classes offered at the college. A student or employee who voluntarily seeks assistance to overcome substance abuse problems will receive counseling services on a confidential and non-punitive basis. When necessary, referral will be made to a community agency for assessment, prescribed treatment, and follow-up.

Treatment programs are available at the following agencies:

Montcalm Center for Behavioral Health
611 N. State, Stanton, MI 48888
517/831-7520

Mt. Pleasant Counseling Services
3480 S. Isabella Rd., Mt. Pleasant, MI 48858
517/773-9655

Substance Abuse Consultation Services
308 E. Main, Stanton, MI 48888
517/831-4980

Students and employees participating in counseling or a prescribed program are not exempt from college policies, procedures or rules.

DISCIPLINARY SANCTIONS
Students and employees who illegally use alcoholic beverages or controlled substances on college property face disciplinary action, suspension from the college, and/or prosecution under the law.

Contact the Student Support Services Office at 517/328-1231 for more information.

Access to Campus Facilities
When facilities and classrooms are not needed for college educational purposes, MCC welcomes the surrounding community to utilize them. MCC expects that students, faculty, staff and the community will work together to preserve safe and well maintained campus facilities. Students have access to MCC facilities except when the campus is closed from 11 p.m. to 7 a.m. Special events or projects may alter these times. General public access to facilities such as the gym and pool is authorized only during scheduled times. Faculty access to MCC facilities is authorized when on college-related business.
Emergency Procedures
Montcalm Community College does not provide medical care beyond first aid. If an emergency condition is such that a person is incapable of a rational decision, a college employee will initiate this procedure. Ambulance and hospital expenses shall be borne by the person, his or her family, or his or her insurance company. The first college employee to become aware of personal injury or illness shall provide reasonable assistance and the Vice President for Administrative Services will be alerted as soon as possible.

PROCEDURE
The first college employee on the scene will:
1. Have someone call for an ambulance, if needed, and briefly and accurately describe the accident. Call 911 on an outside line.

2. If possible have someone contact the parent, guardian, or spouse as a courtesy and calmly explain the situation. Otherwise, the ambulance personnel or the receiving hospital will follow up with the next of kin. The receiving hospital will depend on the patient's preference and/or the seriousness of the accident.

3. Remain with the patient until ambulance personnel arrive keeping him or her as comfortable as possible. Stay long enough to answer any questions the ambulance personnel may have.

4. File an accident report form with the Vice President for Administrative Services no later than the next regular office day.

Threatening Disasters on or Near Campus
Fire or explosion in any building mandates evacuation with expeditious safety. The signal is a loud, constant fire horn which will continue to sound until it has been switched off by college personnel. Directions are simple.

1. Exit the building. All students, employees of the college, and any visitors must exit regardless of the weather.

2. Use the nearest door to the outside.

3. Persons restricted in mobility by crutches, casts, wheelchairs or other handicaps should request and receive assistance as needed. It is recommended that such handicapped persons exit after the first big rush (dependent upon circumstances) thus avoiding the possibility of being pushed off balance, but being certain that dependable assistants have been advised of their need.

Tornado
There is a difference between a tornado watch and a tornado warning. These two terms are used by the US Weather Bureau, the Sheriff's Department and the public news media. A tornado watch means a tornado may develop. A tornado warning means a tornado has been sighted in the area.

SAFETY PROCEDURES
Whenever the watch or warning conditions exist for the vicinity of the college, the Montcalm County Sheriff's Department will phone the MCC switchboard with a specific directive. The officer calling will indicate whether it is a watch or warning and if it is in the immediate vicinity.

1. If a tornado warning condition exists in the immediate vicinity, a message will be sent to all buildings. The fire alarm must not be used.

2. The message will state: "A tornado has been sighted in the area. You are to proceed to the nearest tornado shelter which is indicated on the chart posted in each classroom. It is your responsibility to know exactly where to go from whatever room you might occupy. Your cooperation will facilitate safety for all."

Inclement Weather
Montcalm Community College will cancel all or part of its operations only in case of extreme emergency caused by impassible roads, violent weather, energy loss, or other conditions seriously endangering the health and safety of students, faculty and staff.
Every effort will be made to make the decision to cancel so that the announcement can be made over radio and television stations as early as possible, but no later than 7 a.m. for daytime classes and 3 p.m. for evening classes.

Students, faculty and staff should assume that the college is open unless they hear otherwise on the radio or television. They are asked not to call the college switchboard to ask about cancellations, but to listen for the information on the following radio or television stations.

RADIO STATIONS
WPLB Greenville, 1380 AM & 106.3 FM
WODJ Grand Rapids, 107.3 FM
WOOD Grand Rapids, 1300 AM & 105.7 FM
WION Ionia, 1430 AM
WBRN Big Rapids, 1460 AM & 100.9 FM
WCEN Mt. Pleasant, 1150 AM & 94.5 FM
WCUZ Grand Rapids, 1230 AM & 101.3 FM
WCFX Mt. Pleasant, 95 FM
WMLM St. Louis, 1520 AM
WFYC Alma, 1280 AM & 104.9 FM

TELEVISION STATIONS
WOOD Grand Rapids, Channel 8
WLNS Lansing, Channel 6
WZZM Grand Rapids, Channel 13

General Situations
If you suspect that a crime is being committed or has been committed, call or visit the Montcalm County Sheriff's Department immediately. It is located at 659 N. State, Stanton, MI 48888. For emergencies, call 911. For non-emergencies call 517/831-5253. An emergency is any situation needing immediate attention.

When calling the sheriff's department, please provide your name, location of the incident, description of the scene and suspects, and description of any vehicle involved in the incident, including a license plate number.

Specific Situations
1. If you are a victim of a crime, call 911 as soon as possible. If it is an assault, try to remember as much about the person as possible. Important characteristics include: sex, race, hair color, height and weight,遭到 the scene and suspects, and description of vehicles and license plate numbers. The campus will be searched immediately for suspects and neighboring police agencies will be notified. In many incidents, the victim may already know the name of the person committing the assault.

2. If you see a suspicious person, call 911 as soon as possible. Do not approach the person yourself. When reporting suspicious activity, describe the behavior and give a general description of the suspicious persons. General descriptive information that is helpful includes: the number of persons, sex, race, dress, vehicle, and location. Sheriff's deputies will investigate your report immediately. If all members of the campus community become security conscious and report suspicious activity, thefts and related incidents will be prevented or reduced.

Reporting Crimes and Emergencies
Campus crime is a reality at small, rural community colleges. Preventing crime is a shared responsibility between Montcalm Community College and its campus community members. Public apathy is a criminal's greatest ally. You cannot assume that someone has reported criminal activity. Suspicion is the only reason you need for calling the police. Suspicion of a crime does not require proof. Whether you are or someone else is the victim, you should report a crime, suspicious activity or any other emergency on campus.
3. Call 911 immediately if you receive a bomb threat. Then, contact the office of the Vice President for Administrative Services located in the Library and Administration Building. If the office is closed, contact the Personnel Office. If the Personnel Office is closed, contact the custodian on duty in the Power Plant. Obtain as much information from the caller as possible including the location of the bomb, the time of explosion, and the type of bomb. Observe the caller's voice and any background noises. This information can assist in identifying the caller. Sheriff's deputies will search the area identified and contact a removal team if a device is found. The sheriff's department and college administrators will determine if evacuation is required.

4. If there are any other emergencies such as a fire or people needing medical attention, call 911 immediately.

**Crime Prevention**

MCC recognizes the benefits of both preventative and reactive efforts. Crime prevention is best achieved through interacting with and outreaching to students, faculty and staff. Campus safety and crime prevention is a shared responsibility between MCC students and employees.

Crime prevention at MCC is part of a community-based program. The main goal is to improve the quality of life for members of the campus community. MCC's crime prevention program stresses community awareness/interaction through the dissemination of materials and presentations geared toward students, faculty and staff. MCC's annual efforts include:

1. Posting of crime prevention awareness information in college buildings.
2. Disseminating crime prevention material in handbooks and in the Student Services Office.
3. Utilizing county and state police crime prevention specialists as speakers.
4. Disseminating the Annual Security Report to all current employees and students and to all prospective employees and students who request it.

**Campus Law Enforcement**

MCC's campus law enforcement policy is based on the desire to ensure the reasonable safety of persons visiting or utilizing the college campuses. Practical response considers the location of campuses, the peak time periods of use, the range of persons who have access to the campuses, available law enforcement, college resources, legal obligations and the crime rate in the surrounding community.

Security concerns at MCC are coordinated through the Vice President for Administrative Services. Law enforcement responsibilities are administered by the Montcalm County Sheriff's Department and other local police agencies. Twenty-four-hour patrol, dispatch services and emergency services are coordinated with local municipal emergency and law enforcement agencies.

MCC shall make timely reports to the campus community of crimes considered to be a threat to other students and employees. These reports include crimes as described in the Annual Security Report and are reported to local law enforcement agencies. The reports shall be provided to students and employees in a timely manner to help prevent similar occurrences.
COMMUNITY SERVICES

Montcalm Community College is dedicated to providing educational experiences for all residents in our community. The non-credit courses, workshops and seminars offered through the Community Services Office will help you prepare for the challenges of the twenty-first century by providing current and useful information on topics of interest to you in your personal or professional life. Courses are conveniently scheduled.

Courses
Non-credit courses for professional and personal development are offered throughout the year. These change as the needs of the community change. Courses include computer instruction, hospice training, management training, CPR, first aid, time management and financial planning. Non-credit courses are available at MCC's campus and throughout the community. Registration for non-credit and recreation courses is accepted by mail, in person, and by phone (if paying by credit card). The tuition waiver for senior citizens is not available for non-credit and recreation courses.

Recreation classes are popular with all ages. Swimming classes, which are held in MCC's NCAA-sized swimming pool, are offered for infants through senior citizens. Lifeguard training and water safety instructor training courses are held in cooperation with the physical education department and are offered for credit and non-credit. Other health courses, such as weight training, aerobics, personalized body conditioning and dance, are offered in the MCC gym and fitness center. The MCC Fitness Center is a self-directed exercise center with Nautilus fitness equipment, Schwinn Aire Dynes stationery bicycles, a free weight area and treadmills. MCC also has the only indoor rock climbing wall in Montcalm County. After instruction in the basic techniques of climbing, successful students are issued authorization cards that permit use of the wall during open climbing sessions. MCC's gym, swimming pool, and fitness center are also open to the public during designated hours.

Continuing education and professional development courses are offered through Community Services. The office works closely with the nursing faculty to provide continuing education units that fulfill requirements for license renewal in the state of Michigan. Other professional development courses are available upon request.

Programs
Summer day camps for children offer a learning experience in a fun environment. In cooperation with the Montcalm Area Intermediate School District and the Montcalm Area Arts Association, the college hosts weekly science, fine arts and sports camps.

Wellness activities are planned with the cooperation of representatives from area health organizations. A Healthy Kids Carnival for area third graders, a speaker's bureau on health topics and a Corporate Fitness Challenge are examples of annual programs.

The Life Long Learners is MCC's program affiliated with the Elderhostel's Institute for Learning in Retirement program. The LLL addresses the desire of retired citizens to continue learning by attending non-credit academic short courses at a nominal fee. The courses are offered by institute members. The institute is open to all persons regardless of previous education. The members govern the group and lead some of the academic coursework in lieu of professional faculty. Members enjoy academic pursuits without concern for credit, grades or pre-requisites.

Special events are available to the community throughout the year. Santa's Super Sunday is a college-wide seasonal open house held on the first Sunday of December. Many family activities are planned for the day.

Facilities
Community Services works with many organizations to bring educational programs to Montcalm County by providing use of college facilities. MCC hosts programs, including Senior Fest, Deaf Pride Day, overnight high school graduation parties, company picnics, instructor trainer workshops, Diabetes Health Fair, country-western show, Winter Special Olympics, Parent Fair, and Senior Awareness Day.

For information about current courses and recreation opportunities, contact the Community Services Office at 517/328-1260.
COLLEGE FACILITIES

ACTIVITIES BUILDING: This building contains a pool, a gymnasium, the bookstore, the food services area, a student lounge area, the fitness center and a conference room.

BARN THEATRE: The Barn Theatre is located west of College Drive and includes the college's performing arts facilities.

BEATRICE E. DOSER BUILDING: This building, scheduled to open in fall 1999, will house seminar and conference space, the Skills Development Lab, computer labs and classrooms, general classrooms, a telecommunications classroom and instructors' offices.

BOOKSTORE: The MCC Bookstore, located in the Activities Building, offers textbooks, student supplies, greeting cards, and a variety of items bearing the MCC name.

CAREER LIBRARY: The Career Library, in the Student Services Building, contains career planning information. College catalogs, various brochures, job descriptions, and up-to-date employment trends are among the materials and information available.

COMMUNITY LEARNING CENTERS: The MCC Ionia Center, located in the Ionia Educational Center at 250 E. Tuttle Road, and the MCC Greenville Center, located at 407 Nelson Drive, are sites of off-campus college courses. MCC also offers courses at a number of other off-campus locations. Contact the Student Services Office or see an MCC semester class schedule for a current listing of off-campus courses.

FOUNDATION FARMHOUSE: The Foundation Farmhouse is located on Sidney Road west of College Drive.

INSTRUCTION EAST BUILDING: This two-story building contains labs, classrooms and instructors' offices.

INSTRUCTION NORTH BUILDING: This building in the northwest corner of campus houses classrooms and offices.

INSTRUCTION WEST BUILDING: This building contains auditoriums, classrooms, and instructors' offices.

THE LIBRARY: The library is available to students and the community and is located in the Library and Administration Building. Books and reference materials, collections of periodicals, audiovisual materials, video viewing stations, Internet access and study areas are available. Automated information searches are available via CD-ROM products and various on-line database services. Proof of identification is needed to borrow library materials. Library cards are not issued.

LIBRARY AND ADMINISTRATION BUILDING: The Library and Administration Building includes the President's Office, the Instructional Office, the Business Office, the Dean of Student Services Office, the Enrollment Services Office, the Student Support Services Office, the Financial Aid Office and the Library.

MONTCALM HERITAGE VILLAGE: The village, located on the west side of campus, includes local historical buildings and artifacts. An annual Heritage Village Celebration takes place on campus during August.

NATURE TRAILS: Several trails exist in the nature area on college property and adjoining state land. Biology students use the nature trails for short field trips and research projects, and students and community members may take self-guided nature walks.

PHYSICAL EDUCATION FACILITIES: MCC's physical education facilities include an NCAA swimming pool, tennis courts, a softball field, a gymnasium, and the MCC Fitness Center. The facilities are available to students and community members.

Handicapped students and senior citizens with limited mobility are encouraged to attend MCC classes and use MCC's facilities. The buildings are barrier-free and every attempt is made to provide additional accommodations if required.
Campus Key
1. Foundation Farmhouse
2. Barn Theatre
3. Tennis Courts
4. Activities Building
5. Beatrice E. Doser Building
6. Library and Administration Building
7. Instruction East Building
8. Instruction West Building
9. Instruction North Building
10. Montcalm Heritage Village
ACCOUNTING

This program leads to an associate degree in applied arts and sciences with an emphasis in accounting and provides the background and skills necessary for an entrance job in the accounting field. A minimum of 62 credits is required.

Course Name                  Course #  Cr.

**General Education Core**
Freshman English I           ENGL 100  3
Freshman English II          ENGL 101  3
Introduction to Social Science I  POLI 110  4
Humanities I                 HUMN 200  4
Introduction to Computer Information Systems  CMIS 115  3
Intermediate Algebra         MATH 104  4
A laboratory science course

**Core Requirements**
Principles of Accounting I   ACCT 115  4
Principles of Accounting II  ACCT 116  4
Legal Environment of Business BUSN 200  3
Computerized Accounting I    ACCT 213  3
Computerized Accounting II   ACCT 214  3
Management                   MGMT 237  3
Tax Accounting               ACCT 246  3
Organizational Behavior      MGMT 250  3
Business Calculators*         CMIS 240  3
Business Strategy & Policy   BUSN 283  3

**Other Degree Requirements**
Speech                       COMM 210  3
Principles of Macroeconomics  ECON 215  3

*The prerequisite of CMIS155 does not apply in this program.
This program leads to an associate degree in applied arts and sciences with an emphasis in business administration and provides the background skills necessary for an entrance job in the business field. A minimum of 60 credits is required.

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<tr>
<td>Introduction to Computer Information Systems</td>
<td>CMIS 115</td>
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<tr>
<td>Elementary Algebra</td>
<td>MATH 100</td>
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<td>A laboratory science course</td>
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**Core Requirements**

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<td>ACCT 116</td>
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<tr>
<td>Legal Environment of Business</td>
<td>BUSN 200</td>
<td>3</td>
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<tr>
<td>Marketing</td>
<td>MGMT 233</td>
<td>3</td>
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<tr>
<td>Management</td>
<td>MGMT 237</td>
<td>3</td>
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<tr>
<td>Organizational Behavior</td>
<td>MGMT 250</td>
<td>3</td>
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<td>International Business</td>
<td>BUSN 260</td>
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<tr>
<td>Keyboarding</td>
<td>CMIS 100</td>
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<tr>
<td>Introduction to PCs and Spreadsheets</td>
<td>CMIS 125</td>
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</table>

**Other Degree Requirements**

<table>
<thead>
<tr>
<th>Course Name</th>
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<tbody>
<tr>
<td>Business Communications II</td>
<td>CMIS 185</td>
<td>3</td>
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<tr>
<td>Speech</td>
<td>COMM 210</td>
<td>3</td>
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<tr>
<td>Principles of Macroeconomics</td>
<td>ECON 215</td>
<td>3</td>
</tr>
<tr>
<td>Business Strategy &amp; Policy</td>
<td>BUSN 283</td>
<td>3</td>
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<tr>
<td>Electives</td>
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</table>

**Suggested Electives**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
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</thead>
<tbody>
<tr>
<td>Accounting for Small Business</td>
<td>ACCT 105</td>
<td>3</td>
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<tr>
<td>Computerized Accounting I</td>
<td>ACCT 213</td>
<td>3</td>
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<tr>
<td>Computerized Accounting II</td>
<td>ACCT 214</td>
<td>3</td>
</tr>
<tr>
<td>Retailing</td>
<td>MGMT 234</td>
<td>3</td>
</tr>
<tr>
<td>Small Business Management</td>
<td>MGMT 235</td>
<td>3</td>
</tr>
<tr>
<td>Advertising</td>
<td>MGMT 248</td>
<td>3</td>
</tr>
<tr>
<td>Customer Relations</td>
<td>BUSN 251</td>
<td>2</td>
</tr>
<tr>
<td>Field Experience</td>
<td>BUSN 292</td>
<td>4-5</td>
</tr>
<tr>
<td>Microcomputer Applications</td>
<td>CMIS 175</td>
<td>3</td>
</tr>
<tr>
<td>Issues in Leadership</td>
<td>HUMN 270</td>
<td>3</td>
</tr>
<tr>
<td>Managerial Math</td>
<td>MATH 116</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra</td>
<td>MATH 159</td>
<td>4</td>
</tr>
<tr>
<td>General Psychology</td>
<td>PSYC 220</td>
<td>3</td>
</tr>
</tbody>
</table>

"The prerequisite of CMIS 180 does not apply to this program."
This program leads to an associate degree in applied arts and sciences with a specialty in business information systems and provides the background and skills necessary for a job in the business information systems field. It is designed for students seeking entry level business/management careers with companies that use microcomputers and commercially available software packages. A minimum of 60 credits is required.

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<td>Introduction to Social Science I</td>
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<tr>
<td>Humanities I</td>
<td>HUMN 200</td>
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<tr>
<td>Introduction to Computer Information Systems</td>
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<tr>
<td>Elementary Algebra</td>
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<tr>
<td>A laboratory science course</td>
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</tbody>
</table>

| **Core Requirements**                   |          |     |
| Principles of Accounting I              | ACCT 115 | 4   |
| Principles of Accounting II             | ACCT 116 | 4   |
| Legal Environment of Business           | BUSN 200 | 3   |
| Management                              | MGMT 237 | 3   |
| Organizational Behavior                 | MGMT 250 | 3   |
| Introduction to Programming and Logic   | CMIS 130 | 3   |
| Microcomputer Applications              | CMIS 175 | 3   |
| Microcomputer Spreadsheets              | CMIS 250 | 3   |
| Microcomputer Data Base Applications    | CMIS 255 | 3   |
| Advanced Microcomputer Applications     | CMIS 260 | 3   |
| Systems Concepts/Design                 | CMIS 265 | 4   |

**Other Degree Requirements**
- Business Communications II* CMIS 185 3

**Suggested Electives**
- Intermediate Algebra MATH 104 4
- Managerial Math MATH 116 3

*The prerequisite of CMIS 180 does not apply to this program.
Graduates of the cosmetology management program possess skills and knowledge to operate in today's business setting as shop managers and are able to work directly on customers. Some may wish to emphasize entrepreneurial skills with plans to open their own shops in the future. In addition to the 60 credits required for degree completion, students must be eligible for state cosmetology licensure testing.

Course Name                  Course #  Cr.

**General Education Core**

Freshman English I           ENGL 100  3
Introduction to Social Science I POLI 110  4
Humanities I                 HUMN 200  4
Introduction to Computer Information Systems CMIS 115  3
Elementary Algebra           MATH 100  4
A laboratory science course   3-5

**Core Requirements**

All cosmetology 200-level required courses or equivalent hours/credits (as determined by pre-board testing).

**Other Degree Requirements**

Accounting for Small Business ACCT 105  3
or Principles of Accounting I ACCT 115  4
Small Business Management    MGMT 235  3

**Electives (select 1)**

Legal Environment of Business BUSN 200  3
Principles of Marketing       MRKT 233  3
Retailing                     MRKT 234  3
Organizational Behavior       MGMT 250  3
Customer Relations            BUSN 251  2
Microcomputer Applications    CMIS 175  3
Business Communications I     CMIS 180  3
Principles of Macroeconomics  ECON 215  3
General Psychology            PSYC 220  3

*Students who hold a valid State of Michigan Cosmetology License issued within the last 24 months may be granted up to 36 credits (a maximum of 32 general cosmetology credits) toward this degree. If licensed more than two years ago, applicants must document six months' work experience out of the last 30 months to be eligible for the transfer credit. Unlicensed transfer applicants must take state pre-board exams to determine transfer credits in cosmetology.*

A CERTIFICATE PROGRAM IN COSMETOLOGY IS ALSO AVAILABLE.
This associate degree program prepares successful graduates for careers in the criminal justice field. The program is designed to provide maximum transferability to four-year colleges and universities which offer a bachelor's degree in criminal justice or related fields. A minimum of 60 credits is required.

**Course Name** | **Course #** | **Cr.**
--- | --- | ---
**General Education Core**
Freshman English I | ENGL 100 | 3
Freshman English II | ENGL 101 | 3
Introduction to Social Science | POLI 110 | 4
Humans I | HUMN 200 | 4
Introduction to Computer Information Systems | CMIS 115 | 3
Elementary Algebra | MATH 100 | 4
A laboratory science course | | 3-5

**Core Requirements**
Introduction to Criminal Justice | CRIM 100 | 3
Introduction to Corrections | CRIM 110 | 3
Corrections Institutions/Facilities | CRIM 120 | 3
Police Administration and Operations | CRIM 125 | 3
Criminal Investigation | CRIM 130 | 3
PPCT Defensive Tactics | CRIM 137 | 2
American Criminal Law | CRIM 210 | 3
Juvenile Delinquency | CRIM 230 | 3
Introduction to Security Systems | CRIM 240 | 3

**Other Degree Requirements**
Speech | COMM 210 | 3
Psychology | PSYC 220 | 3
American Political System | POLI 240 | 3
Elective | | 1

**Suggested Electives**
Principles of Accounting I | ACCT 115 | 4
Introduction to Business | BUSN 135 | 3
Communication in Criminal Justice | CRIM 136 | 3
Emergency Intervention Techniques | CRIM 138 | 2
Criminal Justice Practicum* | CRIM 290 | 5
Personal Self-Defense** | PHED 114 | 1

*Students employed by a criminal justice organization (law enforcement agency, security, corrections, etc.) for six or more months may substitute any two additional SOCI, POLI, CRIM, PARA, BUSN, ACCT, MRKT or MGMT courses.

**Students may substitute PHED 111, PHED 112 or PHED 125.

CRIMINAL JUSTICE/CORRECTIONS CERTIFICATE AND TRAINING PROGRAMS ARE ALSO AVAILABLE.
Criminal Justice/Corrections

This associate degree program prepares successful graduates for careers in corrections. It includes the 15 credit hours needed for certification, degree requirements and other career-related courses. The program is also designed to provide maximum transferability to four-year colleges and universities which offer a bachelor's degree in criminal justice or related fields. A minimum of 60 credits is required.

### General Education Core
- Freshman English I  ENGL 100  3
- Freshman English II  ENGL 101  3
- Introduction to Social Science I  POLI 110  4
- Humanities I  HUMN 200  4
- Introduction to Computer Information Systems  CMIS 115  3
- Elementary Algebra  MATH 100  4
- A laboratory science course  3-5

### Core Requirements
- Introduction to Criminal Justice  CRIM 100  3
- Introduction to Corrections  CRIM 110  3
- Stress Management for Correctional Officers  CRIM 115  1
- Corrections Institutions/Facilities  CRIM 120  3
- Communication in Criminal Justice  CRIM 136  3
- PPCT Defensive Tactics  CRIM 137  2
- Emergency Intervention Techniques  CRIM 138  2
- American Criminal Law  CRIM 210  3
- Legal Issues in Corrections  CRIM 220  3
- Parole and Probation  CRIM 235  3
- Client Relations in Corrections  CRIM 250  3
- Client Growth & Development  CRIM 260  3

### Other Degree Requirements
- Speech  COMM 210  3
- Electives  1

### Suggested Electives
- Organizational Behavior  MGMT 250  3
- Criminal Justice Practicum*  CRIM 290  5
- Psychology  PSYC 220  3

*Students employed by a criminal justice organization (law enforcement agency, security, corrections, etc.) for six or more months may substitute any two additional SOCI, POLI, CRIM, PARA, BUSN, ACCT, MKRT or MGMT courses.

CRIMINAL JUSTICE/CORRECTIONS CERTIFICATE AND TRAINING PROGRAMS ARE ALSO AVAILABLE.
Most manufactured items, however large or small, require a series of drawings to bring them from design conception to manufactured reality. A drafter is responsible for sketches, design layouts, detail and assembly drawings, and tool drawings; all necessary graphic communications for manufacturing. A minimum of 60 credits is required.

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<tr>
<td>Intermediate Algebra</td>
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| **Core Requirements**                |          |     |
| Basic Machine Operation              | INDS 220 | 3   |
| Basic Fluid Power                    | INDS 253 | 3   |
| Manufacturing Processes              | INDS 260 | 2   |
| Technical Drafting I                 | TDSN 100 | 3   |
| Descriptive Geometry                 | TDSN 110 | 3   |
| Technical Drafting II                | TDSN 130 | 3   |
| Tool and Die Design*                 | TDSN 135 | 2   |
| Product Design                       | TDSN 215 | 3   |
| Jig & Fixture Design                 | TDSN 230 | 3   |
| Introduction to CAD                  | TDSN 250 | 3   |

**Other Degree Requirements**
- Customer Relations: BUSN 251 2
- Trigonometry: MATH 120 3
- Industrial Graphics: TDSN 102 2
- Communication: TDSN 102 2
- Elective: 1

*Students may substitute TDSN 140 Plastic Mold Design I.

A CERTIFICATE PROGRAM IN DRAFTING IS ALSO AVAILABLE.
E A R L Y  C H I L D H O O D  D E V E L O P M E N T

This program is for students who desire training that satisfies state requirements for Headstart programs, day-care centers, home day care and related areas. A minimum of 60 credits is required.

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<td>Laboratory science course</td>
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<tr>
<td>Introduction to CDA</td>
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<tr>
<td>Child Development: Infants &amp; Toddlers</td>
<td>ECDV 110</td>
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<td>Child Development: Preschoolers</td>
<td>ECDV 120</td>
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<td>Infant/Toddler &amp; Preschool</td>
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<tr>
<td>Curriculum</td>
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<td>ECDV 150</td>
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<td>Children with Special Needs</td>
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<td>MGMT 235</td>
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<td>Introduction to Physical Fitness</td>
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<tr>
<td>Legal Environment of Business</td>
<td>BUSN 200</td>
<td>3</td>
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<tr>
<td>Organizational Behavior</td>
<td>MGMT 250</td>
<td>3</td>
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<tr>
<td>Michigan Child Care Futures:</td>
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<tr>
<td>Basic</td>
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<td>Michigan Child Care Futures:</td>
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A CHILD DEVELOPMENT ASSOCIATE TRAINING PROGRAM IS ALSO AVAILABLE.
This program prepares students for diagnosis and repair of complex electronic devices and may be transferable to a four-year university. Through proper selection of electives, emphasis may be placed upon communications, computers or industrial electronics. A counselor or instructor can help select courses for these areas. A minimum of 62 credit hours is required for the degree and at least 26 must be ELEC courses.

**Course Name** | **Course #** | **Cr.**
---|---|---
**General Education Core**
Freshman English I | ENGL 100 | 3
Freshman English II | ENGL 101 | 3
Introduction to Social Science I | POLI 110 | 4
Humanities I | HUMN 200 | 4
Introduction to Computer Information Systems | CMIS 115 | 3
Intermediate Algebra | MATH 104 | 4
Introduction to College Physics | PHYS 111 | 3

**Core Requirements**
Concepts of Electricity | ELEC 100 | 3
Electronic Fabrication | ELEC 105 | 1
Electronic Circuit Analysis | ELEC 110 | 3
Electronic Devices | ELEC 120 | 3
Electronic Circuits | ELEC 210 | 3
Digital Electronics | ELEC 230 | 3
Microprocessors | ELEC 240 | 3
Industrial Electrical Maintenance I | ELEC 251 | 2
Industrial Electrical Maintenance II | ELEC 252 | 2
Industrial Electrical Maintenance III | ELEC 253 | 2
Industrial Electrical Maintenance IV | ELEC 254 | 2

**Other Degree Requirements**
Customer Relations | BUSN 251 | 2
Trigonometry | MATH 120 | 3
Introduction to College Physics II | PHYS 112 | 3
Elective | | 1

**Suggested Electives**
Introduction to Programming and Logic | CMIS 130 | 3
Basic Fluid Power | INDS 253 | 3
College Algebra | MATH 159 | 4
This program leads successful students to an associate degree in applied arts and sciences with a specialty in pre-hospital emergency medicine. It provides the knowledge and skills necessary to obtain employment in emergency medicine and related fields. Graduates are eligible to apply for paramedic licensure through the EMS Division of the Michigan Department of Consumer and Industry Services and national registration through the National Registry of Emergency Medical Technicians. A minimum of 60 credit hours is required.

<table>
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<tr>
<th>Course Name</th>
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<tr>
<td><strong>SPRING SEMESTER</strong></td>
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<tr>
<td>Emergency Medical Technician</td>
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<td>ENGL 100</td>
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<td>Biological Science</td>
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<tr>
<td><strong>FALL SEMESTER</strong></td>
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<td>Emergency Medical Technician</td>
<td>AHEA 202</td>
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<td>Specialist/Paramedic</td>
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<td>Freshman English II</td>
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<tr>
<td>Anatomy and Physiology I</td>
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<td><strong>SPRING SEMESTER</strong></td>
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<tr>
<td>Paramedic Pharmacology</td>
<td>AHEA 203</td>
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<td>Paramedic Cardiology</td>
<td>AHEA 204</td>
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<tr>
<td>Anatomy and Physiology II</td>
<td>BIOL 203</td>
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<tr>
<td><strong>SUMMER SEMESTER</strong></td>
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<tr>
<td>Paramedic Clinical I</td>
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<tr>
<td><strong>FALL SEMESTER</strong></td>
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<tr>
<td>Paramedic Medical Emergencies</td>
<td>AHEA 206</td>
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<td>Paramedic Traumatic Emergencies</td>
<td>AHEA 207</td>
<td>3</td>
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<tr>
<td>Paramedic Clinical II</td>
<td>AHEA 208</td>
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**Suggested Electives**

- Dosages & Calculations: AHEA 106 1
- Introduction to Computer Information Systems: CMIS 115 3
- Bioethics: HUMN 222 3
- Understanding Research: NURS 260 2
- Intermediate Algebra: MATH 104 4
- Introduction to Social Science II: SOCI 111 4
This program provides students a knowledge of business concepts and technology. Graduates are prepared for employment as secretaries, who are responsible for assisting the executive. A minimum of 60 credits is required.

**Course Name** | **Course #** | **Cr.**
--- | --- | ---
**General Education Core**
Freshman English I | ENGL 100 | 3
Freshman English II | ENGL 101 | 3
Introduction to Social Science I | POLI 110 | 4
Humanities I | HUMN 200 | 4
Introduction to Computer Information Systems | CMIS 115 | 3
Elementary Algebra | MATH 100 | 4
A Laboratory science course | | 3-5

**Core Requirements**
International Business | BUSN 260 | 3
Typing II | CMIS 140 | 3
Speedwriting I | CMIS 145 | 3
Business Communications I | CMIS 180 | 3
Business Communications II | CMIS 185 | 3
Records Management | CMIS 190 | 3
Typing III | CMIS 200 | 3
Voice Transcription: Business | CMIS 225 | 3
Business Calculators | CMIS 240 | 3
Advanced Document Processing | CMIS 245 | 3
Office Administration | CMIS 270 | 3

**Other Degree Requirements**
Accounting for Small Business | ACCT 105 | 3
Elective | | 1

**Suggested Electives**
Introduction to Business | BUSN 135 | 3
Organizational Behavior | MGMT 250 | 3
Speed Writing II | CMIS 150 | 3
Microcomputer Applications | CMIS 175 | 3
Field Experience | CMIS 290 | 3
Issues in Leadership | HUMN 270 | 3

50
This program provides the skills and technical knowledge necessary to prepare for entry-level employment in the food service/restaurant industry. Students completing this program have basic skills in food preparation, nutrition and menu planning, hotel and restaurant management, and small business operation in the food service industry. A minimum of 60 credits is required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
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</thead>
<tbody>
<tr>
<td><strong>General Education Core</strong></td>
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<td>Introduction to Social Science I</td>
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<td>Humanities I</td>
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<tr>
<td>Introduction to Computer</td>
<td>CMIS 115</td>
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<tr>
<td>Information Systems</td>
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**Core Requirements**

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<td>and Sanitation</td>
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<td>Food Production Skills: General</td>
<td>FSMT 110</td>
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<td>Food Production Skills: Entree</td>
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<td>Meat and Portion Control</td>
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<td>Nutrition and Menu Planning</td>
<td>PSTM 140</td>
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<td>Equipment Design, Layout</td>
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<td>and Selection</td>
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<td>Food Service Management</td>
<td>FSMT 201</td>
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<tr>
<td>Food Production Skills: Bakery</td>
<td>FSMT 210</td>
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<tr>
<td>Food Production Skills: Catering</td>
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<td>Food Purchasing</td>
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**Other Degree Requirements**

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</tr>
<tr>
<td>Small Business Management</td>
<td>MGMT 235</td>
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</table>

A CERTIFICATE PROGRAM IN FOOD SERVICE TECHNOLOGY IS ALSO AVAILABLE.
Graduates of this program have a well-rounded background preparing them for work in manufacturing and process industries as planners, buyers or technicians. Transfer to a four-year bachelor's degree program is also possible. The training offers many hours of practical, hands-on experience to complement the theory. Students are urged to learn typing in high school or early in this program. A minimum of 60 credits is required.

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<td>Elementary Algebra</td>
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<td>Introduction to College Physics I</td>
<td>PHYS 111</td>
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<td><strong>Core Requirements</strong></td>
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<td>Concepts of Electricity</td>
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<td>Basic Fluid Power</td>
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<td>Manufacturing Processes</td>
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<td>Industrial Quality Control</td>
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<td>Technical Drafting I</td>
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<td>Layout &amp; Precision Measurement</td>
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Other Degree Requirements

- Customer Relations: BUSN 251 2
- Intermediate Algebra: MATH 104 4
- Trigonometry: MATH 120 3
- Introduction to College Physics II: PHYS 112 3
- Industrial Graphics Communications: TDSN 102 2
Graduates of this program have a knowledge of business concepts and skill in the use of several types of electronic office equipment, and are prepared for employment as information processing secretaries or administrative secretaries. Advancement may be attained for students who wish to further specialize in related fields. A minimum of 60 credits is required.

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<td>Elementary Algebra</td>
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<td>Microcomputer Applications</td>
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<td>Business Communications I</td>
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<td>Voice Transcription: Business</td>
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<td>Business Calculators</td>
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<td>Advanced Document Processing</td>
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<td>Office Administration</td>
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**Other Degree Requirements**

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<th>Course #</th>
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**Suggested Electives**

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<th>Course #</th>
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<tbody>
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<td>Speed Writing I</td>
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<tr>
<td>Field Experience</td>
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A CERTIFICATE PROGRAM FOR INFORMATION PROCESSING ASSISTANT IS ALSO AVAILABLE.
This program prepares students who wish to specialize in legal transcription and legal office procedures for employment or advancement. A minimum of 60 credits is required.

<table>
<thead>
<tr>
<th>General Education Core</th>
<th>Course #</th>
<th>Cr.</th>
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<tbody>
<tr>
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<tr>
<td>Introduction to Computer Information Systems</td>
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<th>Core Requirements</th>
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<tr>
<td>Typing II</td>
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<td>Records Management</td>
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<tr>
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<td>3</td>
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<tr>
<td>Legal Terminology</td>
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<td>Legal Office Procedures</td>
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<td>Voice Transcription: Legal</td>
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<td>Business Calculators</td>
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<tr>
<td>Advanced Document Processing</td>
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</tr>
<tr>
<td>Office Administration</td>
<td>CMIS 270</td>
<td>3</td>
</tr>
</tbody>
</table>

Other Degree Requirements
- Accounting for Small Business  ACCT 105  3
- Legal Environment of Business  BUSN 200  3
- Elective                        1

Suggested Electives
- Introduction to Business        BUSN 135  3
- Organizational Behavior         MGMT 250  3
- Speedwriting II                 CMIS 150  3
- Microcomputer Operations        CMIS 175  3
- Business Communications II      CMIS 185  3
- Field Experience                CMIS 290  3
- Legal Research and Writing      PARA 110  3

A CERTIFICATE PROGRAM FOR LEGAL OFFICE ASSISTANT IS ALSO AVAILABLE.
This program prepares students who wish to specialize in medical transcription and medical office procedures for employment or advancement. A minimum of 61 credits is required.

<table>
<thead>
<tr>
<th>Course Name</th>
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<tbody>
<tr>
<td><strong>General Education Core</strong></td>
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<tr>
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<tbody>
<tr>
<td>Typing II</td>
<td>CMIS 140</td>
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<tr>
<td>Speedwriting I</td>
<td>CMIS 145</td>
<td>3</td>
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<tr>
<td>Business Communications I</td>
<td>CMIS 180</td>
<td>3</td>
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<tr>
<td>Records Management</td>
<td>CMIS 190</td>
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<tr>
<td>Typing III</td>
<td>CMIS 200</td>
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<tr>
<td>Medical Terminology</td>
<td>CMIS 215</td>
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<tr>
<td>Medical Office Procedures</td>
<td>CMIS 220</td>
<td>3</td>
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<tr>
<td>Voice Transcription: Medical</td>
<td>CMIS 235</td>
<td>3</td>
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<tr>
<td>Business Calculators</td>
<td>CMIS 240</td>
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<td>Advanced Document Processing</td>
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<tr>
<td>Office Administration</td>
<td>CMIS 270</td>
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</tbody>
</table>

**Other Degree Requirements**

- Emergency Health Care \[ AHEA 100 \] 2
- Accounting for Small Business \[ ACCT 105 \] 3

**Suggested Electives**

- Introduction to Business \[ BUSN 135 \] 3
- Organizational Behavior \[ MGMT 250 \] 3
- Speedwriting II \[ CMIS 150 \] 3
- Microcomputer Applications \[ CMIS 175 \] 3
- Business Communications II \[ CMIS 185 \] 3
- Field Experience \[ CMIS 290 \] 3

A CERTIFICATE PROGRAM FOR MEDICAL OFFICE ASSISTANT IS ALSO AVAILABLE.
Students completing the certificate and applied arts and sciences degree programs become eligible to apply for the National Council Licensure Examination/Computer Adaptive Testing (NCLEX-RN/CAT) for licensure as a Registered Nurse (RN). To be placed on the waiting list, students must complete the MCC Application for Admission; send their official high school transcripts or GED results to MCC; score at least 40 on the ASSET reading skills test; score at least 41 on the ASSET numerical skills test; complete a college biology course with a lab, equivalent to BIOL100, with a C or better grade within the last 10 years (or receive a passing score on the MCC Competency Exam); complete at least 1 credit at MCC; and submit a Waiting List Request Form to the MCC Enrollment Services Office. Prior to admission to the certificate program, students must complete BIOL103 and BIOL203 with a C or better grade within 7 years of entry into the first clinical course of the nursing program (NURS101), complete ENGL100, and have completed high school Algebra I or a more advanced math course within 5 years of entry into the nursing program, MCC's MATH100, or received a passing score on the competency test (as arranged by the Math Department). Students must submit a completed, current MCC health form and proof of completing the CPR Health Care Provider course to the Nursing Office prior to the start of the program and contact the Nursing Office to set up an interview with the Associate Dean for Health Occupations.

Successful completion of the Pre-Assessment RN exam is required prior to admission to the degree program. There is a $20 testing fee for the exam which is offered each January. Prior to admission to the degree program, the student must also complete a general chemistry course with a lab, equivalent to CHEM105, with a C or better grade within the last 7 years before entry into the first clinical course of the nursing program; complete ENGL101; complete BIOL201 within the last 7 years before entry into the first clinical course of the nursing program (NURS253) with a C or better grade, or concurrent with NURS253 Advanced Medical-Surgical Nursing; complete PSYC220 prior to NURS227 Community Mental Health; and complete POLI110. Students must submit a completed, current MCC health form and proof of completing the CPR Health Care Provider course to the Nursing Office prior to the start of the program. Admission into the nursing program is dependent upon available space and is not guaranteed immediately upon acceptance or placement on the waiting list.

Felony Statement: Previous treatment for substance abuse or conviction of a felony may prevent an applicant from taking the NCLEX-PN or NCLEX-RN. Individuals with a conviction history must contact the Board of Nursing and inform them of the circumstances for which subsequent determination should be made regarding licensure eligibility in the State of Michigan.

Course Name  Course #  Cr.

The following curriculum sequence is recommended:

FALL SEMESTER
- Freshman English I  ENGL 100  3
- Anatomy and Physiology I  BIOL 103  5
- Introduction to Social Science I  POLI 110  4

SPRING SEMESTER
- Freshman English II  ENGL 101  3
- Anatomy and Physiology II  BIOL 203  4
- General Psychology  PSYC 220  3

The following curriculum sequence is required:

FALL SEMESTER
- Fundamentals of Nursing Care  NURS 101  5
- Nursing of the Adult Client I  NURS 103  6
- Nutrition and Diet Therapy in Nursing
- Introduction to Concepts of Communication in Nursing  NURS 121  2
- Pharmacology in Nursing  NURS 163  2

SPRING SEMESTER
- Pharmacology in Nursing (continues)
- Nursing of the Adult Client II  NURS 105  6
- Nursing Care of the Childbearing Family  NURS 146  3
- Nursing Care of Children  NURS 147  3

SUMMER SEMESTER
- Nursing of the Adult Client III  NURS 119  5
- Nursing Issues and Trends  NURS 126  0.5

FALL SEMESTER
- Microbiology*  BIOL 201  4
- Advanced Medical-Surgical Nursing  NURS 253  10

SPRING SEMESTER
- Community Mental Health  NURS 227  5
- Advanced Nursing Care of the Childbearing Family  NURS 246  3
- Advanced Nursing Care of Children  NURS 247  3
SUMMER SEMESTER
Leadership and Management  NURS 257  3

*BIO1201 can be taken prior to fall semester.

Upon completion of the ADN program, students are required to take an RN review course. Students need to prepare, in advance, to acquire funds for the $200 course fee.

Advanced Standing
This program provides a means for the Licensed Practical Nurse, holding a valid unencumbered license in good standing, to complete the ADN program and become eligible to make application for the National Council Licensing Examination/Computer Adaptive Testing (NCLEX-RN/CAT) for licensure as a Registered Nurse (RN).

To be placed on the waiting list, students must have completed a PN program; complete an MCC Application for Admission; submit official transcripts of previous high school and college course work; score at least 40 on the ASSET reading skills test; score at least 41 on the ASSET numerical skills test; complete a general chemistry course with lab, equivalent to CHEM105 Introductory Chemistry, with a C or better grade within the last 7 years before entry into the first clinical course of the nursing program; complete a high school Algebra I or more advanced math course within the last 5 years, MCC's MATH100, or receive a passing score on the competency test as arranged by the Math Department; complete ENGL101 Freshman English II; and complete a pharmacology course in the Practical Nurse program within the previous 5 years of beginning the ADN program. The 5-year requirement may be waived with documentation of current work experience as an LPN who administers medications in acute or extended care or completion of an NLN competency test scoring in the 50th percentile. There is a fee for NLN testing. Applicants who do not meet these criteria must complete a pharmacology course. Official transcripts must be received to complete waiting list requirements. Students must also complete a nutrition course or the NLN competency test scoring in the 50th percentile (there is a fee for this test), score at least 25 on the dosage calculation evaluation and submit a Waiting List Request Form.

Before beginning ADN nursing courses, students must complete POLI110 Introduction to Social Science I; submit a completed, current MCC health form and proof of completing the CPR Health Care Provider course to the Nursing Office prior to the start of nursing courses; and contact the Nursing Office to set up an interview with the Associate Dean for Health Occupations. Students must take BIO1201 Microbiology within the last 7 years prior to entry into the first clinical course in the nursing program (this may be taken prior to or concurrent with NURS253 Advanced Medical-Surgical Nursing) and PSYC220 General Psychology prior to NURS227 Community Mental Health. If the PN graduation date is more than 5 years previous, students must be NLN tested (there is a fee for each of the 3 tests taken) and complete a skills test arranged and administered by the nursing department. Admission into the advanced standing program is dependent upon available space and is not guaranteed immediately upon acceptance or being placed on the waiting list.

Course Name  Course #  Cr.
The following curriculum sequence is recommended:

FALL SEMESTER
Introduction to Social Science I  POLI  110  4

SPRING SEMESTER
Freshman English II  ENGL  101  3
General Psychology  PSYC  220  3

The following curriculum sequence is required:

SUMMER SEMESTER
Role Transition  NURS  200  2

FALL SEMESTER
Microbiology  BIOL  201  4
Advanced Medical-Surgical Nursing  NURS  253  10

SPRING SEMESTER
Community Mental Health  NURS  227  5
Advanced Nursing Care of the Childbearing Family  NURS  246  3
Advanced Nursing Care of Children  NURS  247  3

SUMMER SEMESTER
Leadership and Management  NURS  257  3

A CERTIFICATE PROGRAM IN PRACTICAL NURSING IS ALSO AVAILABLE.
This curriculum prepares students for a paralegal career. A minimum of 60 credits is required.

<table>
<thead>
<tr>
<th>Course Name</th>
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<th>Cr.</th>
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<tbody>
<tr>
<td><strong>General Education Core</strong></td>
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<tr>
<td>Freshman English I</td>
<td>ENGL 100</td>
<td>3</td>
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<tr>
<td>Introduction to Social Science I</td>
<td>POLI 110</td>
<td>4</td>
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<tr>
<td>Humanities I</td>
<td>HUMN 200</td>
<td>4</td>
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<tr>
<td>Introduction to Computer Information Systems</td>
<td>CMIS 115</td>
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<td>Elementary Algebra</td>
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**Core Requirements**

<table>
<thead>
<tr>
<th>Course Name</th>
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<th>Cr.</th>
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<tbody>
<tr>
<td>Legal Environment of Business</td>
<td>BUSN 200</td>
<td>3</td>
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<tr>
<td>American Criminal Law</td>
<td>CRIM 210</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Paralegal Studies</td>
<td>PARA 100</td>
<td>3</td>
</tr>
<tr>
<td>Legal Research and Writing</td>
<td>PARA 110</td>
<td>3</td>
</tr>
<tr>
<td>Estates, Wills and Trusts</td>
<td>PARA 200</td>
<td>3</td>
</tr>
<tr>
<td>Litigation I</td>
<td>PARA 215</td>
<td>3</td>
</tr>
<tr>
<td>Litigation II</td>
<td>PARA 216</td>
<td>3</td>
</tr>
<tr>
<td>Domestic Relations Law or Tax Law</td>
<td>PARA 217</td>
<td>3</td>
</tr>
<tr>
<td>Paralegal Practicum</td>
<td>PARA 210</td>
<td>3</td>
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**Other Degree Requirements**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
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<tbody>
<tr>
<td>Principles of Accounting I</td>
<td>ACCT 115</td>
<td>4</td>
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<tr>
<td>Typing I</td>
<td>CMIS 105</td>
<td>3</td>
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<tr>
<td>Speech</td>
<td>COMM 210</td>
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<td>Electives</td>
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**Suggested Electives**

<table>
<thead>
<tr>
<th>Course Name</th>
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<th>Cr.</th>
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</thead>
<tbody>
<tr>
<td>Business Communications II*</td>
<td>CMIS 185</td>
<td>3</td>
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<tr>
<td>Advanced Document Processing*</td>
<td>CMIS 245</td>
<td>3</td>
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<tr>
<td>Tax Law</td>
<td>PARA 210</td>
<td>3</td>
</tr>
<tr>
<td>Domestic Relations Law</td>
<td>PARA 217</td>
<td>3</td>
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<tr>
<td>Administrative Law</td>
<td>PARA 219</td>
<td>2</td>
</tr>
<tr>
<td>Paralegal Practicum</td>
<td>PARA 290</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisites for these courses are waived for this program.
PLASTICS MANUFACTURING TECHNOLOGY

This MCC and Grand Rapids Community College joint program trains students for employment as laboratory technicians, mold designers, production supervisors, mold technicians and plastics machinery maintenance technicians for the rapidly growing, local plastics forming industry. Injection molding, blow molding, extrusion, thermoforming, and many secondary processes are studied in the program. Injection molding, the most prevalent of these processes, is emphasized. Some advanced standing credit may be granted to entering graduates of high school machine tool and drafting programs that have articulation agreements with MCC. Most lecture courses are taken at MCC and the laboratory courses are taken at GRCC. Where possible the lecture portion of laboratory courses will be offered by distance instructional television allowing MCC students to attend the lectures on MCC's campus.

This program transfers to Ferris State University for those wishing to pursue a bachelor's degree in Engineering Technology.

Course Name        Course #    Cr.

General Education Core

Freshman English I  ENGL 100  3
Applied Algebra     MATH 110  2
                or Elementary Algebra  MATH 100 (4)
                or College Algebra     MATH 159 (4)
Humanities I        HUMN 200  4
Introduction to Computer Information Systems CMIS 115  3
Introduction to Social Science I POLI 110  4
                or American Government PS 110 (4)
A laboratory science course 3-5

Core Requirements

Plastics Technology INDS 120  2
Plastic Mold Design I TDSN 140  2
Basic Plastics Processing" MN 220  3
Injection Molding Theory" MN 223  3
Applied Injection Molding" MN 242  4
Injection Molding Machine" Maintenance MN 246  3
Plastics Testing" MN 165  4
Advanced Plastics Processing" MN 244  4

Other Degree Requirements

Introduction to CAD TDSN 250  3
Concepts of Electricity ELEC 100  3
Technical Drafting TDSN 100  3
Basic Fluid Power INDS 253  3
Industrial Quality Control (SPC)*** INDS 270  2
Speech COMM 210  3
Elementary Statistics (or PHYS 111 or CHEM 220) MATH 190  3
Advanced Tech Math** TE 104  3
Manufacturing Principles*** MN 100  2
Physical Education*** PE 2
CO-OP*** (400 hrs Paid or Unpaid) 3
(TDSN 299 MCC or TE 282 GRCC)

*GRCC courses with lecture at MCC via ITV. Labs are held in the GRCC Applied Technology Building.

**Courses held at GRCC

***Courses that should be taken if the student intends to transfer to the FSU Engineering Technology program.

****Courses available at GRCC or MCC.
This program is offered in cooperation with Mid-Michigan Community College and is for students who live in the MCC service area. Liberal arts, science and prerequisite courses (36 credit hours) are available at MCC. Radiography courses (29 credit hours) are taught at MMCC and the clinical courses (26 credit hours) are arranged locally. Upon completion of the course work, an associate in applied science degree is awarded by MMCC with a major in Radiography. Graduates are eligible to apply for the American Registry of Radiologic Technologists certification examination.

**Course Name** | **Course #** | **Cr.**
---|---|---
**First Year**
FALL SEMESTER (MONTCALM)
Medical Terminology* | CMIS 215 | 3
Freshman English I* | ENGL 100 | 3
Elementary Algebra* | MATH 100 | 4
Anatomy and Physiology I* | BIOL 103 | 5
Introductory Chemistry* | CHEM 105 | 4

SPRING SEMESTER (MONTCALM)
Introduction to Computer Information Systems* | CMIS 115 | 3
Anatomy and Physiology II* | BIOL 203 | 4
Introduction to Social Science I | POLI 110 | 4
General Psychology | PSYC 220 | 3
Speech | COMM 210 | 3

*These courses are prerequisite to acceptance in MMCC’s Radiography program. Additionally, HUM 200 Modernity & Culture (3 credits) is to be taken at MMCC or equivalent credit earned. All courses must have a C or better to transfer except BIOL 103 and BIOL 203 which require a B-. Science and math courses must have been completed within five years of the date the student formally begins the program.

All documents, testing and prerequisites should be completed and submitted to MMCC by May 20 for students to be eligible to begin Radiography classes by fall at MMCC. Admission into the program is dependent upon available space; however, MCC has been guaranteed a minimum of two slots each academic year. Students are expected to contact John Skinner, MMCC’s Director of the Radiography Program, at (517) 386-6646 once each semester.

**Second Year**
MCC students accepted in MMCC’s Radiography Program will be allowed to enroll in RAD courses at the MMCC in-district tuition rate.

FALL SEMESTER (MID-MICHIGAN)
Introduction to Radiologic Technology | RAD 100 | 3
Radiation Physics | RAD 110 | 3

WINTER SEMESTER (MID-MICHIGAN)
Principles of Radiation Exposure | RAD 115 | 3
Radiographic Positioning I | RAD 130 | 4

SUMMER SEMESTER (MID-MICHIGAN)
Radiographic Positioning II | RAD 175 | 3

**Third Year**
This 50-week clinical is held at Carson City Hospital.

FALL SEMESTER
Clinical Education I | RAD 200 | 8
Radiologic Techniques I | RAD 215 | 2
Concepts in Microbiology | BIO 110 | 1
Clinical Issues in Radiography I | RAD 201 | 2

SPRING SEMESTER
Radiologic Techniques II | RAD 217 | 2
Clinical Education II | RAD 220 | 9
Clinical Issues in Radiography II | RAD 221 | 1

SUMMER SEMESTER
Clinical Education III | RAD 225 | 5
Radiographic Quality Assurance | RAD 230 | 1
Clinical Issues in Radiography III | RAD 226 | 1
Small Business Development/Management

This program prepares students to start a new business venture, determine vendors, price merchandise, use a microcomputer for accounting purposes, recruit and select employees and handle public relations. A minimum of 60 credits is required.

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<td><strong>Core Requirements</strong></td>
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</tr>
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<td>Accounting for Small Business</td>
<td>ACCT 105</td>
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<tr>
<td>Legal Environment of Business</td>
<td>BUSN 200</td>
<td>3</td>
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<tr>
<td>Marketing</td>
<td>MRKT 233</td>
<td>3</td>
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<tr>
<td>Retailing</td>
<td>MRKT 234</td>
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<tr>
<td>Small Business Management</td>
<td>MGMT 235</td>
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<tr>
<td>Tax Accounting</td>
<td>ACCT 246</td>
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<tr>
<td>Advertising</td>
<td>MRKT 248</td>
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<tr>
<td>Customer Relations</td>
<td>BUSN 251</td>
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<tr>
<td>International Business</td>
<td>BUSN 260</td>
<td>3</td>
</tr>
<tr>
<td>Microcomputer Applications</td>
<td>CMIS 175</td>
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**Other Degree Requirements**

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<tbody>
<tr>
<td>Speech</td>
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<tr>
<td>Principles of Macroeconomics</td>
<td>ECON 215</td>
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<tr>
<td>Electives</td>
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<td>ACCT 115</td>
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<tr>
<td>Principles of Accounting II</td>
<td>ACCT 116</td>
<td>4</td>
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<tr>
<td>Computerized Accounting I</td>
<td>ACCT 213</td>
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<tr>
<td>Computerized Accounting II</td>
<td>ACCT 214</td>
<td>3</td>
</tr>
<tr>
<td>Management</td>
<td>MGMT 237</td>
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</tr>
<tr>
<td>Field Experience</td>
<td>MGMT 292</td>
<td>4-5</td>
</tr>
</tbody>
</table>

A CERTIFICATE PROGRAM FOR SMALL BUSINESS DEVELOPMENT/MANAGEMENT IS ALSO AVAILABLE.
**Certificate Programs**

**Computer Repair**

This certificate program provides students training in the installation, maintenance, and upgrading of hardware and software used in personal computers. Students may develop sufficient skills for A+ Certification created by the Computer Technology Industry Association. Thirty-two credits are required.

<table>
<thead>
<tr>
<th>Course Name</th>
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<tbody>
<tr>
<td>FALL SEMESTER</td>
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<tr>
<td>Keyboarding</td>
<td>CMIS 100</td>
<td>1</td>
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<tr>
<td>Computer Literacy</td>
<td>CMIS 101</td>
<td>2</td>
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<tr>
<td>Technical Writing for Business and Industry</td>
<td>INDS 140</td>
<td>3</td>
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<tr>
<td>Elementary Algebra</td>
<td>MATH 100</td>
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<tr>
<td>Concepts of Electricity</td>
<td>ELEC 100</td>
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<tr>
<td>Computer Repair I</td>
<td>ELEC 171</td>
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<tbody>
<tr>
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<tr>
<td>Introduction to Computer Information Systems</td>
<td>CMIS 115</td>
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<tr>
<td>Introduction to Internet</td>
<td>CMIS 110</td>
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<tr>
<td>Introduction to Programming &amp; Logic</td>
<td>CMIS 130</td>
<td>3</td>
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<tr>
<td>Customer Relations</td>
<td>BUSN 251</td>
<td>2</td>
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<tr>
<td>Electronic Fabrication</td>
<td>ELEC 105</td>
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<tr>
<td>Digital Logic</td>
<td>ELEC 130</td>
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<tr>
<td>Computer Repair II</td>
<td>ELEC 172</td>
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</table>

This Michigan Department of Commerce Division of Licensing and Regulations-approved program prepares students to take the State Licensing Board Examination. Over 900 hours are spent in lab work. Thirty-two credit hours and 1,500 attendance hours are required. Admission is granted for fall semester only.

<table>
<thead>
<tr>
<th>Course Name</th>
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<tr>
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<tr>
<td>FALL SEMESTER*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Cosmetology</td>
<td>COSM 100</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Cosmetology Lab</td>
<td>COSM 110</td>
<td>4</td>
</tr>
<tr>
<td>Beginning Hairstyling</td>
<td>COSM 101</td>
<td>3</td>
</tr>
<tr>
<td>Beginning Hairstyling Lab</td>
<td>COSM 111</td>
<td>4</td>
</tr>
<tr>
<td>SPRING SEMESTER*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning Hair Cutting and Permanent Waving</td>
<td>COSM 102</td>
<td>3</td>
</tr>
<tr>
<td>Beginning Hair Cutting and Permanent Waving Lab</td>
<td>COSM 112</td>
<td>4</td>
</tr>
<tr>
<td>Beginning Hair Coloring and Professional Development</td>
<td>COSM 103</td>
<td>3</td>
</tr>
<tr>
<td>Beginning Hair Coloring and Professional Development Lab</td>
<td>COSM 113</td>
<td>4</td>
</tr>
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</table>

To begin second-year course work, students must have passed all written tests with a minimum of 75% and completed at least 690 clock hours. Departmental approval is required for any exceptions.

<table>
<thead>
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<td>Advanced Hairstyling</td>
<td>COSM 200</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Hairstyling Lab</td>
<td>COSM 210</td>
<td>5</td>
</tr>
<tr>
<td>Advanced Hair Coloring and Permanent Waving</td>
<td>COSM 201</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Hair Coloring and Permanent Waving Lab</td>
<td>COSM 211</td>
<td>5</td>
</tr>
<tr>
<td>SPRING SEMESTER*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Hairstyling II</td>
<td>COSM 202</td>
<td>3</td>
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<tr>
<td>Advanced Hairstyling II Lab</td>
<td>COSM 212</td>
<td>5</td>
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<tr>
<td>Salon Management and Board Review</td>
<td>COSM 203</td>
<td>3</td>
</tr>
<tr>
<td>Salon Management and Board Review Lab</td>
<td>COSM 213</td>
<td>5</td>
</tr>
</tbody>
</table>

*18-week semester program with 9-week courses.

AN ASSOCIATE DEGREE IN COSMETOLOGY MANAGEMENT IS ALSO AVAILABLE.
CRIMINAL JUSTICE/ CORRECTIONS

This certificate program prepares students for careers with state, county or city correctional agencies. It meets the Michigan Corrections Officer Training Council pre-employment guidelines and provides students with communications coursework—a necessity in today's corrections environment. Courses are transferable to most colleges and universities offering degrees in corrections. Thirty-two credit hours are required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER</td>
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<td></td>
</tr>
<tr>
<td>Introduction to Criminal Justice</td>
<td>CRIM 100</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Corrections</td>
<td>CRIM 110</td>
<td>3</td>
</tr>
<tr>
<td>Corrections Institutions/Facilities</td>
<td>CRIM 120</td>
<td>3</td>
</tr>
<tr>
<td>Freshman English I</td>
<td>ENGL 100</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Social Science I</td>
<td>POLI 110</td>
<td>4</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication in Criminal Justice</td>
<td>CRIM 136</td>
<td>3</td>
</tr>
<tr>
<td>Legal Issues in Corrections</td>
<td>CRIM 220</td>
<td>3</td>
</tr>
<tr>
<td>Client Relations in Corrections</td>
<td>CRIM 250</td>
<td>3</td>
</tr>
<tr>
<td>Client Growth and Development</td>
<td>CRIM 260</td>
<td>3</td>
</tr>
<tr>
<td>Freshman English II</td>
<td>ENGL 101</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
<td>COMM 210</td>
<td>3</td>
</tr>
</tbody>
</table>

The following courses may be taken in any sequence, providing the necessary prerequisites have been met. The employer may recommend that certain courses be taken earlier to enhance or accelerate the intern's CES development. Forty-seven hours are required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
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</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>ENGL 100</td>
<td>3</td>
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<tr>
<td>Business Communications I</td>
<td>CMIS 180</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
<td>COMM 210</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Accounting I</td>
<td>ACCT 115</td>
<td>4</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>MRKT 233</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>BUSN 135</td>
<td>3</td>
</tr>
<tr>
<td>Legal Environment of Business</td>
<td>BUSN 200</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Systems</td>
<td>CMIS 115</td>
<td>3</td>
</tr>
<tr>
<td>Technical Drafting I</td>
<td>TDSN 100</td>
<td>3</td>
</tr>
<tr>
<td>Electronic Fabrication</td>
<td>ELEC 105</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to CAD</td>
<td>TDSN 250</td>
<td>3</td>
</tr>
<tr>
<td>Advanced AutoCAD</td>
<td></td>
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<tr>
<td>Applications</td>
<td>TDSN 251</td>
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<tr>
<td>Trigonometry</td>
<td>MATH 120</td>
<td>3</td>
</tr>
<tr>
<td>Concepts of Electricity</td>
<td>ELEC 100</td>
<td>3</td>
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<tr>
<td>Electronic Circuits Analysis I</td>
<td>ELEC 110</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Physics I</td>
<td>PHYS 111</td>
<td>3</td>
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</table>

ASSOCIATE DEGREES IN CRIMINAL JUSTICE AND CRIMINAL JUSTICE/CORRECTIONS AND A TRAINING PROGRAM IN CRIMINAL JUSTICE/CORRECTIONS ARE ALSO AVAILABLE.
This certificate program helps students prepare for their first job as a detailer or a drawing changer and is considered a first step toward an associate degree. Thirty credit hours are required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Relations</td>
<td>BUSN 251</td>
<td>2</td>
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<tr>
<td>Introduction to Computer Information Systems</td>
<td>CMIS 115</td>
<td>3</td>
</tr>
<tr>
<td>Basic Machine Operation</td>
<td>IND 220</td>
<td>3</td>
</tr>
<tr>
<td>Basic Fluid Power</td>
<td>IND 253</td>
<td>3</td>
</tr>
<tr>
<td>Manufacturing Processes</td>
<td>IND 260</td>
<td>2</td>
</tr>
<tr>
<td>Applied Algebra</td>
<td>MATH 110</td>
<td>2</td>
</tr>
<tr>
<td>or Elementary Algebra*</td>
<td>MATH 100</td>
<td>4</td>
</tr>
<tr>
<td>Applied Geometry</td>
<td>MATH 111</td>
<td>2</td>
</tr>
<tr>
<td>or Intermediate Algebra*</td>
<td>MATH 104</td>
<td>4</td>
</tr>
<tr>
<td>Improving Reading &amp; Writing</td>
<td>DVED 175</td>
<td>3</td>
</tr>
<tr>
<td>Technical Drafting I</td>
<td>TDSN 100</td>
<td>3</td>
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<tr>
<td>Industrial Graphics</td>
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<tr>
<td>Communication</td>
<td>TDSN 102</td>
<td>2</td>
</tr>
<tr>
<td>Reading Engineering Drawings</td>
<td>TDSN 105</td>
<td>2</td>
</tr>
<tr>
<td>Technical Drafting II</td>
<td>TDSN 130</td>
<td>3</td>
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</tbody>
</table>

*The alternate math courses are recommended for those with adequate background who are considering the associate degree.

An Associate Degree in Drafting Technology is also available.

This program provides the skills and technical knowledge necessary for entry-level employment in the food service/restaurant industry and teaches basic skills in food preparation, nutrition and menu planning. A minimum of 30 credit hours is required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
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<tbody>
<tr>
<td>Introduction to Food Service</td>
<td>FSMT 100</td>
<td>3</td>
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<tr>
<td>Food Service Safety and Sanitation</td>
<td>FSMT 101</td>
<td>2</td>
</tr>
<tr>
<td>Food Production Skills: General</td>
<td>FSMT 110</td>
<td>4</td>
</tr>
<tr>
<td>Food Production Skills: Entree</td>
<td>FSMT 120</td>
<td>4</td>
</tr>
<tr>
<td>Meat and Portion Control</td>
<td>FSMT 130</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition and Menu Planning</td>
<td>FSMT 140</td>
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<tr>
<td>FSMT electives</td>
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</tbody>
</table>

An Associate Degree in Food Service Technology is also available.
INFORMATION PROCESSING ASSISTANT

This program provides a background in and an understanding of different types of electronic office equipment. It prepares students for initial employment in the information processing field. Thirty credit hours are required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
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</tr>
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<tbody>
<tr>
<td>FALL SEMESTER</td>
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<td>Introduction to Computer</td>
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</tr>
<tr>
<td>Information Systems</td>
<td>CMIS 115</td>
<td>3</td>
</tr>
<tr>
<td>Typing II</td>
<td>CMIS 140</td>
<td>3</td>
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<tr>
<td>Business Mathematics</td>
<td>CMIS 155</td>
<td>3</td>
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<tr>
<td>Business Communications I</td>
<td>CMIS 180</td>
<td>3</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
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<tr>
<td>Microcomputer Applications</td>
<td>CMIS 175</td>
<td>3</td>
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<tr>
<td>Business Communications II</td>
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<td>Typing III</td>
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</tr>
<tr>
<td>Office Administration</td>
<td>CMIS 270</td>
<td>3</td>
</tr>
<tr>
<td>SUMMER SEMESTER</td>
<td></td>
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</tr>
<tr>
<td>Voice Transcription: Business</td>
<td>CMIS 225</td>
<td>3</td>
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<tr>
<td>Advanced Document Processing</td>
<td>CMIS 245</td>
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</table>

AN ASSOCIATE DEGREE IN INFORMATION SYSTEMS IS ALSO AVAILABLE.

LEGAL OFFICE ASSISTANT

This program provides an understanding of legal office assisting practices and procedures. Thirty credit hours are required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>Legal Environment of Business</td>
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<tr>
<td>Typing II</td>
<td>CMIS 140</td>
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</tr>
<tr>
<td>Business Communications I</td>
<td>CMIS 180</td>
<td>3</td>
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<tr>
<td>Legal Terminology</td>
<td>CMIS 205</td>
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<td>ACCT 105</td>
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<tr>
<td>Introduction to Computer</td>
<td></td>
<td></td>
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<tr>
<td>Information Systems</td>
<td>CMIS 115</td>
<td>3</td>
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<tr>
<td>Typing III</td>
<td>CMIS 200</td>
<td>3</td>
</tr>
<tr>
<td>Legal Office Procedures</td>
<td>CMIS 210</td>
<td>3</td>
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<td>SUMMER SEMESTER</td>
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<tr>
<td>Voice Transcription: Legal</td>
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<td>3</td>
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</table>

AN ASSOCIATE DEGREE IN LEGAL INFORMATION SYSTEMS IS ALSO AVAILABLE.
# Machine Tool Operation

Students who successfully complete this program are eligible to obtain entry-level jobs in metalworking industries as machinist helpers. Many of the courses are applicable toward an associate degree or an apprenticeship certificate. A minimum of 30 credit hours is required.

<table>
<thead>
<tr>
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<th>Course #</th>
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<tbody>
<tr>
<td><strong>FALL SEMESTER</strong></td>
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<tr>
<td>Basic CNC Operation</td>
<td>IND S 102</td>
<td>2</td>
</tr>
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<td>Metallurgy and Heat Treatment</td>
<td>IND S 130</td>
<td>2</td>
</tr>
<tr>
<td>Basic Machine Operation</td>
<td>IND S 220</td>
<td>3</td>
</tr>
<tr>
<td>Applied Algebra</td>
<td>MATH 110</td>
<td>2</td>
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<tr>
<td>or Elementary Algebra</td>
<td>MATH 100</td>
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<tr>
<td>Introduction to College Writing II</td>
<td>DV ED 171</td>
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<td>or freshman English I</td>
<td>ENGL 100</td>
<td>3</td>
</tr>
<tr>
<td>Reading Engineering Drawings</td>
<td>TDSN 105</td>
<td>2</td>
</tr>
<tr>
<td>Welding Technique and Joint Preparation</td>
<td>WELD 107</td>
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<tr>
<td><strong>SPRING SEMESTER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Machine Operation</td>
<td>IND S 221</td>
<td>3</td>
</tr>
<tr>
<td>Basic Fluid Power</td>
<td>IND S 253</td>
<td>3</td>
</tr>
<tr>
<td>Manufacturing Processes</td>
<td>IND S 260</td>
<td>2</td>
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<tr>
<td>Industrial Quality Control</td>
<td>IND S 270</td>
<td>2</td>
</tr>
<tr>
<td>Applied Geometry</td>
<td>MATH 111</td>
<td>2</td>
</tr>
<tr>
<td>or Intermediate Algebra</td>
<td>MATH 104</td>
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<tr>
<td>Layout and Precision Measurement</td>
<td>TDSN 106</td>
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</table>

This program provides an understanding of assisting and practice in medical office procedures. Thirty credit hours are required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FALL SEMESTER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Computer Information Systems</td>
<td>CMIS 115</td>
<td>3</td>
</tr>
<tr>
<td>Typing II</td>
<td>CMIS 140</td>
<td>3</td>
</tr>
<tr>
<td>Business Communications I</td>
<td>CMIS 180</td>
<td>3</td>
</tr>
<tr>
<td>Medical Terminology</td>
<td>CMIS 192</td>
<td>5</td>
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<tr>
<td><strong>SPRING SEMESTER</strong></td>
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<tr>
<td>Emergency Health Care</td>
<td>AHEA 100</td>
<td>2</td>
</tr>
<tr>
<td>Accounting for Small Business</td>
<td>ACCT 105</td>
<td>3</td>
</tr>
<tr>
<td>Typing III</td>
<td>CMIS 200</td>
<td>3</td>
</tr>
<tr>
<td>Medical Office Procedures</td>
<td>CMIS 220</td>
<td>3</td>
</tr>
<tr>
<td>Business Calculators</td>
<td>CMIS 240</td>
<td>3</td>
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<tr>
<td><strong>SUMMER SEMESTER</strong></td>
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<tr>
<td>Voice Transcription: Medical</td>
<td>CMIS 235</td>
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<tr>
<td>Elective</td>
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</tr>
</tbody>
</table>

AN ASSOCIATE DEGREE IN MEDICAL INFORMATION SYSTEMS IS ALSO AVAILABLE.
This curriculum prepares students for employment in a variety of office occupations and includes the development of skills and knowledge needed to carry out routine office functions. Previous typing training is desirable. Thirty credit hours are required. Students wishing to continue training may apply credits earned toward the computer information or management programs.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>Introduction to Computer Systems</td>
<td>CMIS 115</td>
<td>3</td>
</tr>
<tr>
<td>Typing II</td>
<td>CMIS 140</td>
<td>3</td>
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<tr>
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</tr>
<tr>
<td>Business Communications I</td>
<td>CMIS 180</td>
<td>3</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting for Small Business</td>
<td>ACCT 105</td>
<td>3</td>
</tr>
<tr>
<td>Business Communications II</td>
<td>CMIS 185</td>
<td>3</td>
</tr>
<tr>
<td>Typing III</td>
<td>CMIS 200</td>
<td>3</td>
</tr>
<tr>
<td>Business Calculators</td>
<td>CMIS 240</td>
<td>3</td>
</tr>
<tr>
<td>Office Administration</td>
<td>CMIS 270</td>
<td>3</td>
</tr>
<tr>
<td>SUMMER SEMESTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice Transcription: Business</td>
<td>CMIS 225</td>
<td>3</td>
</tr>
<tr>
<td>or Voice Transcription: Legal</td>
<td>CMIS 230</td>
<td>3</td>
</tr>
<tr>
<td>or Voice Transcription: Medical</td>
<td>CMIS 235</td>
<td>3</td>
</tr>
</tbody>
</table>

This articulated certificate program prepares students for employment as operators, molding technicians, material handlers, or mold setters in the field of injection molding and provides entry-level skills for employment related to the processes of extrusion, blow molding, and thermoforming. Students take a combination of lecture and laboratory courses from instructors who have experience in the plastics industry.

All credits earned in this program are applicable toward the associate in applied arts and sciences in Plastics Manufacturing Technology. Some classes are transferable into Ferris State University’s four-year bachelor of science in Plastics Engineering Technology degree; however, students interested in transferring to FSU should see their academic advisor for specific information.

The following course sequence is presented as a guide only. Courses may be taken in any order, as long as all requirements (including prerequisites) are met.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to CAD</td>
<td>TDSN 250</td>
<td>3</td>
</tr>
<tr>
<td>Plastics Technology</td>
<td>IND S 120</td>
<td>2</td>
</tr>
<tr>
<td>Applied Algebra</td>
<td>MATH 110</td>
<td>2</td>
</tr>
<tr>
<td>Plastic Injection Molding</td>
<td>IND S 121</td>
<td>2</td>
</tr>
<tr>
<td>Technical Writing for Business &amp; Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech</td>
<td>COMM 210</td>
<td>3</td>
</tr>
</tbody>
</table>

| SPRING SEMESTER                      |          |     |
| Manufacturing Principles*            | MN 100  | 2   |
| Injection Molding Machine Maintenance* | MN 246  | 3   |
| Basic Plastics Processing*           | MN 220  | 3(3)|
| Applied Injection Molding*           | MN 242  | 4   |
| Electives                            |          | 6-8 |

Students must take two of these electives:
- Plastic Mold Design I TDSN 140 2
- Plastics Testing* CMN 165 4
- Advanced Plastics Processing* MN 244 4

*GRCC course with lecture at MCC via ITV. Labs are held in the GRCC Applied Technology Building.

**Classes held at GRCC
A student completing the certificate program becomes eligible to apply for the National Council Licensure Examination/Computer Adaptive Testing (NCLEX-PN/CAT) for licensure as a Licensed Practical Nurse (LPN). To be placed on the waiting list, students must complete an MCC Application for Admission; send their high school transcripts or GED results to MCC; score at least 40 on the ASSET reading skills test; score at least 41 on the ASSET numerical skills test; complete a college biology course with a lab, equivalent to BIOL 100 Biological Science, with a C or better grade within the last 10 years; complete one MCC credit; and submit a Waiting List Request Form to the MCC Enrollment Services Office. Prior to admission to the PN program, students must complete BIOL 103 and BIOL 203 Anatomy and Physiology I & II with a C or better grade within the last 7 years before entry into the first clinical course of the nursing program; have completed high school algebra or a more advanced math course within the last 5 years, MCC's MATH 100, or receive a passing score on the competency test as arranged by the math department; and complete ENGL 100 Freshman English I. Students must also submit a completed, current MCC Health form and proof of completing the CPR Health Care Provider course to the Nursing Office prior to the start of the program and contact the Nursing Office to set up an interview with the Associate Dean for Health Occupations. Attendance at the nursing orientation is mandatory.

Progression in the nursing program without interruption is determined academically by the minimal grade of C (2.0, 78%) in each nursing course. In required science courses, students must also earn a minimal grade of C or they will not progress.

If progressing to the ADN program, successful completion of the RN pre-assessment exam is required, effective February 1997. There is a fee.

Felony Statement – Previous treatment for substance abuse or conviction of a felony may prevent an applicant from taking the NCLEX-PN or NCLEX-RN. Individuals with a conviction history must contact the Board of Nursing and inform them of the circumstances for which subsequent determination should be made regarding licensure eligibility in the state of Michigan.

### Off Campus

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
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<td>The following curriculum sequence is required:</td>
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<tr>
<td>SPRING SEMESTER</td>
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<tr>
<td>Fundamentals of Nursing Care</td>
<td>NURS 101</td>
<td>5</td>
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<tr>
<td>Nutrition and Diet Therapy in Nursing</td>
<td>NURS 111</td>
<td>2</td>
</tr>
<tr>
<td>Introduction to Concepts of Communications in Nursing</td>
<td>NURS 121</td>
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<td>SUMMER SEMESTER</td>
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<tr>
<td>Nursing of the Adult Client I</td>
<td>NURS 103</td>
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</tr>
<tr>
<td>Pharmacology in Nursing</td>
<td>NURS 163</td>
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<tr>
<td>FALL SEMESTER</td>
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<tr>
<td>Pharmacology (continued from summer)</td>
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<tr>
<td>Nursing Care of the Childbearing Family</td>
<td>NURS 146</td>
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<tr>
<td>Nursing Care of Children</td>
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### On Campus

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<td>NURS 126</td>
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AN ASSOCIATE DEGREE IN NURSING IS ALSO AVAILABLE.
SMALL BUSINESS DEVELOPMENT/MANAGEMENT

WELDING TECHNOLOGY

This certificate program prepares students to handle bookkeeping, determine prices, deal with customers, employ some computer applications and assist in new business development. Thirty credit hours are required.

Course Name              Course #    Cr.

FALL SEMESTER
Legal Environment of Business BUSN 200 3
Marketing                MRKT 233 3
Small Business Management MGMT 235 3
Introduction to Computer  
Information Systems       CMIS 115 3
Business Mathematics      CMIS 155 3

SPRING SEMESTER
Accounting for Small Business ACCT 105 3
Retailing                 MRKT 234 3
Customer Relations        BUSN 251 2
International Business    BUSN 260 3
Microcomputer Applications CMIS 175 3
Elective                  1

AN ASSOCIATE DEGREE IN SMALL BUSINESS DEVELOPMENT/MANAGEMENT IS ALSO AVAILABLE.

This program stresses the development of techniques and understanding of quality weldments. Effects of heat and stress on welded materials are studied and practiced in the laboratory. Students may develop sufficient skill for American Welding Society Certification. Thirty-two credit hours are required. Additional welding courses are available to develop further skills.

Course Name              Course #    Cr.

FALL SEMESTER
Metallurgy and Heat Treatment INDS 130 2
Basic Machine Operations   INDS 220 3
Applied Algebra            MATH 110 2
Introduction to College    DVED 171 2
Writing II                 TDSN 105 2
Reading Engineering Drawings TDSN 105 2
Welding Technique and     WELD 107 3
Joint Preparation          WELD 108 3
Welding and Fabrication I  WELD 120 3

SPRING SEMESTER
Customer Relations         BUSN 251 2
Basic Fluid Power          INDS 253 3
Industrial Graphics        TDSN 102 2
Communication             TDSN 106 2
Layout and Precision
Measurement                WELD 120 3
Welding and Fabrication II WELD 122 3
Related Welding Skills     WELD 122 3

*The college does not certify welders.
Emergency Medical Technician
This program is approved by the state of Michigan’s Emergency Medical Services Division and prepares successful students to take the state examination for licensure as an Emergency Medical Technician. The program requires six hours of lecture per week for 16 weeks and seven hours of clinical practice in one of several local cooperating hospitals starting after the midterm examination. Thirty-two additional lab hours will be arranged during the semester. It is recommended that students enroll in AHEA 100 Emergency Health Care prior to the EMT course.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
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<tbody>
<tr>
<td>FALL SEMESTER</td>
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<tr>
<td>Emergency Medical Technician</td>
<td>AHEA 200</td>
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</table>

EMT Specialist/Paramedic
This program is the first course in the paramedic curriculum and prepares successful students to take the state of Michigan’s examination for licensure as an EMT Specialist. The program requires five hours of lecture per week for 16 weeks and four hours of clinical practice in one of several local cooperating hospitals and ambulance services starting in the sixth week of the semester. Students must have an EMT license to challenge state boards for licensure as an EMT Specialist or Paramedic. Seven credit hours are required.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
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<tbody>
<tr>
<td>FALL SEMESTER</td>
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</tr>
<tr>
<td>EMT Specialist/Paramedic</td>
<td>AHEA 202</td>
<td>2</td>
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</table>

Nurse Assistant
This course provides basic nursing skills and knowledge in the classroom and simulated labs. Supervised clinical experience in long-term, acute-care and home health agencies are included. Upon completion of this course, the student is eligible to apply to the state of Michigan Department of Public Health to take the Certified Nurse Assistant exam.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
<th>Cr.</th>
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<tr>
<td>FALL or SPRING SEMESTER</td>
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<tr>
<td>Nurse Assistant</td>
<td>AHEA 105</td>
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</table>

Students in this program must be employed and sponsored by their employer and a training agreement must be set up between the employer, the employee and the Bureau of Apprenticeship and Training. MCC coordinates the training plan and provides related instruction. Each 16-week semester usually includes two courses of apprenticeship-related instruction. A competency examination or official transcripts may result in a waiver of a required course. Entrance requirements are established by the employer in accordance with Bureau of Apprenticeship and Training standards. Continuation in the training program depends on employment status and achievement levels. The sample schedule of related instruction below is for apprentice tool-and-die designers. The actual number of program hours may vary with the training agreement. Programs for machinists, electricians, plastic mold designers, mold-and-die makers and welders are also available.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course #</th>
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<tbody>
<tr>
<td>FIRST YEAR</td>
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<tr>
<td>Applied Algebra</td>
<td>MATH 110</td>
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<tr>
<td>Applied Geometry</td>
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<tr>
<td>Reading Engineering Drawings</td>
<td>TDSN 105</td>
<td>2</td>
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<tr>
<td>Shop Drawing</td>
<td>TDSN 120</td>
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<tr>
<td>SECOND YEAR</td>
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<tr>
<td>Industrial Safety and First Aid</td>
<td>INDS 155</td>
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<tr>
<td>Applied Right Angle</td>
<td>MATH 112</td>
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<tr>
<td>Trigonometry</td>
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<tr>
<td>Industrial Graphics</td>
<td>TDSN 102</td>
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<tr>
<td>Communication</td>
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<tr>
<td>Layout &amp; Precision Measurement</td>
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<tr>
<td>THIRD YEAR</td>
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<tr>
<td>Machine Tool Theory</td>
<td>INDS 100</td>
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<tr>
<td>Industrial Quality Control</td>
<td>INDS 270</td>
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<tr>
<td>Applied Oblique Angle</td>
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<tr>
<td>Trigonometry</td>
<td>MATH 113</td>
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<tr>
<td>Tool and Die Design I</td>
<td>TDSN 135</td>
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<tr>
<td>TIG Welding</td>
<td>WELD 125</td>
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<tr>
<td>FOURTH YEAR</td>
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<tr>
<td>Basic CNC Operation</td>
<td>INDS 102</td>
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<tr>
<td>Metallurgy &amp; Heat Treatment</td>
<td>INDS 130</td>
<td>2</td>
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<tr>
<td>Tool and Die Design II</td>
<td>TDSN 136</td>
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</tr>
<tr>
<td>Tool and Die Design III</td>
<td>TDSN 137</td>
<td>2</td>
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</tbody>
</table>
The Child Development Associate credential is conferred by the Council for Early Childhood Recognition. To be awarded this credential, students must complete a planned set of activities including work experience, supervised training, and education. MCC does not offer this credential; however, students who complete MCC's ECDV courses will meet the related instruction required as part of one of the CDA credentialing options. Students wishing to learn all that is necessary to apply for the CDA credential should enroll in ECDV100 Introduction to CDA.

AN EARLY CHILDHOOD DEVELOPMENT ASSOCIATE DEGREE IS ALSO AVAILABLE.

This 15-credit-hour, five-course program qualifies students to apply for corrections officer positions with the Michigan Department of Corrections. Students must achieve a minimum 2.0 grade in each course, receive a passing score on the ASSET reading skills test, and pass a written Civil Service exam, a physical fitness exam, a personal interview, a background investigation and drug screening, and have earned a high school diploma or GED to be considered for employment by the Michigan Department of Corrections.

**Course Name** | **Course #** | **Cr.**
--- | --- | ---
Introduction to Corrections | CRIM 110 | 3
Corrections Institutions/Facilities | CRIM 120 | 3
Legal Issues in Corrections | CRIM 220 | 3
Client Relations in Corrections | CRIM 250 | 3
Client Growth and Development | CRIM 260 | 3

A certificate of completion by an outside agency may be awarded to students who successfully complete this program.

AN ASSOCIATE DEGREE IN CRIMINAL JUSTICE AND CRIMINAL JUSTICE/CORRECTIONS AND A CERTIFICATE PROGRAM IN CRIMINAL JUSTICE/CORRECTIONS ARE ALSO AVAILABLE.
<table>
<thead>
<tr>
<th>Course Code Index</th>
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</thead>
<tbody>
<tr>
<td>Use this index by finding the subject of interest. The letter prefix that follows tells where to find descriptions of the courses which cover that subject matter. For example, accounting course descriptions would be found under ACCT.</td>
</tr>
<tr>
<td>Accounting/ACCT</td>
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<td>Anthropology/ANTH</td>
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<td>Art/ARTS</td>
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<td>Business Correspondence/CMIS</td>
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<td>Journalism/COMM</td>
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<td>Keyboarding/CMIS</td>
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<td>Law-Business/BUSN</td>
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<td>Law Enforcement/CRIM</td>
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<td>Legal Information Systems/CMIS</td>
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<td>Machine Lab Apprentice/INDS</td>
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<td>Sculpture/ARTS</td>
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<td>Zoology/BIOL</td>
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</table>
The information in parentheses indicates the number of credit, lecture and laboratory hours for each class. The lecture and laboratory hours equal the total classroom and laboratory contact hours. For example, there are 13 contact hours for the course AHEA200 Emergency Medical Technician — 6 lecture and 7 lab.

### ACADEMIC SKILLS DEVELOPMENT

**DVED108 Problem Solving**  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course covers the techniques used in solving a variety of problems that occur in all aspects of college courses and in all walks of life. This elementary course assumes no prior knowledge beyond basic reading, writing and arithmetic skills.

**DVED110 Career Development**  
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This course is an overview of career and life-style planning. Values, skills, interviews, occupational information, resumes, interest inventories, decision making and placement are covered.

**DVED120 Dealing with Stress**  
(1 credit, 1 lecture, 0 lab) Prerequisites: None

The key focus of this course is to identify stressors while learning psychological and physical responses to stress. Emphasis is given to strategies to reduce and manage stress through relaxation techniques, time management, personality awareness and humor. Students record in a journal personal stressors designing methods to eliminate them.

**DVED150 Developmental Reading I**  
(1 credit, 0 lecture, 1 lab) Prerequisites: None

This course assists students in the development of reading skills with emphasis on decoding strategies, vocabulary growth and comprehension skills. In a lab format, students progress at their own learning rate under instructor supervision. A grade of S indicates satisfactory completion of the course.

**DVED151 Developmental Reading II**  
(1 credit, 0 lecture, 1 lab) Prerequisites: None

This course assists students in the development of reading skills with emphasis on comprehension, vocabulary growth and spelling. In a lab format, students progress at their own learning rate under instructor supervision. A grade of S indicates satisfactory completion of the course.

**DVED152 Developmental Reading III**  
(1 credit, 0 lecture, 1 lab) Prerequisite: DVED151 or a passing score on the ASSET reading skills test

This course assists students in the development of reading skills with emphasis on advanced comprehension skills and vocabulary development. In a lab format, students progress at their own learning rate under instructor supervision. A grade of S indicates satisfactory completion of the course.

**DVED153 Developmental Reading IV**  
(1 credit, 0 lecture, 1 lab) Prerequisites: None

This course assists students in the development of reading skills with emphasis on bringing logical thinking skills to bear on the reading process and on advanced vocabulary development. In a lab format, students progress at their own learning rate under instructor supervision. A grade of S indicates satisfactory completion of the course.
DVED156 Efficient Study
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides instruction and practice in time management, textbook study, note-taking, study environment and memory techniques. Using reference materials in the library and identifying and overcoming self-defeating behaviors are also included. Students wishing to evaluate present study abilities should contact the Skills Development Lab to schedule a time to take the ASSET study skills test. The test results can assist students in deciding whether to enroll in this course.

DVED160 Arithmetic Review I
(1 credit, 0 lecture, 1 lab) Prerequisites: None

This course provides a review of whole numbers and fractions and is especially recommended to students who score below 35 on the ASSET numerical skills test. Instruction in an individualized learning lab allows students to progress at their own pace.

DVED161 Arithmetic Review II
(1 credit, 0 lecture, 1 lab) Prerequisite: A passing score on the ASSET numerical skills test, Corequisite: DVED160

This course provides a review of decimals, ratio and proportion, and percentages in an individualized, self-paced lab. The course is recommended to students who have mastered the skills taught in DVED160 who want a further arithmetic review. It may be useful for students who plan to take Business Math or Business Calculators.

DVED162 Systems of Measurement
(1 credit, 0 lecture, 1 lab) Prerequisite: DVED161 or a passing score on the ASSET numerical skills test

This course provides a review of basic geometry concepts and the metric system. Topics include area, perimeter and volume of parallelograms, trapezoids, triangles and circles, the metric system and conversion between the metric system and the American measurement system and between Fahrenheit and Celsius measures. This class takes place in an individualized, self-paced learning lab. It may be useful to students prior to enrolling in drafting, nursing, and other programs that utilize these concepts.

DVED163 Pre-Algebra
(1 credit, 0 lecture, 1 lab) Prerequisite: DVED162 or a passing score on the ASSET numerical skills test

This class provides an introduction to the basic concepts of elementary algebra. Exponents, square roots, scientific notation, integers and equations are included. This class is taught in an individualized, self-paced learning lab. It may be useful to students prior to taking CMIS155, CMIS115, PHYS101, ELEC100, MATH100 or MATH110.

DVED170 Introduction to College Writing I
(2 credit, 0 lecture, 2 lab) Prerequisites: None

Students learn the basics of writing well-formed sentences and paragraphs. In the first part of the course, students learn to express their thoughts in individual sentences using sentence combining techniques. The second part of the course focuses on paragraph construction with emphasis on topic sentences, varying levels of supporting evidence, paragraph unity and coherence. This course is strongly recommended for students who score below 35 on the ASSET writing skills test.

DVED171 Introduction to College Writing II
(2 credit, 0 lecture, 2 lab) Prerequisite: DVED170 or a passing score on the ASSET writing skills test

This course provides the skills necessary to compose a five-paragraph essay. Major aspects of the course are the essay form, developing a thesis, supporting the thesis with specific evidence, writing an effective introduction and conclusion and improving grammar and sentence mechanics.

DVED175 Improving Reading and Writing
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course offers an opportunity to improve communication skills in reading and writing. Throughout the course, the relationship between good writing and reading for comprehension are stressed. Emphasis is placed on grammar, sentence structure, vocabulary development, spelling and paragraph construction.
DVED299 Directed Study
(variable credit) Prerequisites: Written departmental approval

See the Directed Studies description on page 123.

ACCOUNTING

ACCT104 Finance and Accounting for Nonfinancial Managers
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides basic finance and accounting theory, terminology, and practical applications to the non-accountant. It demonstrates how to read financial data in accounting statements and how the data applies to the work environment.

ACCT105 Accounting for Small Business
(3 credit, 3 lecture, 0 lab) Prerequisites: A passing score on the ASSET reading and numerical skills tests

This course provides basic accounting principles and practices from a theoretical and practical approach, with emphasis on the small business. Although it is not a prerequisite for ACCT115, it is strongly recommended prior to ACCT115.

ACCT115 Principles of Accounting I
(4 credit, 4 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading and numerical skills tests

This introduction to accounting fundamentals covers the meaning and purpose of accounting statements; the theory of debits and credits; accounts payable and receivable; the trial balance; adjusting and closing entries; and accounting for notes, deferred and accrued items. Approximately 10-12 hours per week of study time is required for success in this course. This course is normally offered only in fall semesters.

ACCT116 Principles of Accounting II
(4 credit, 4 lecture, 0 lab) Prerequisite: ACCT115, Pre-
or Corequisite: CMIS125 or CMIS175

This course covers basic procedures for accumulating and using the accounting data needed for managerial planning, controlling and decision making. This course is normally offered only in spring semesters.

ACCT213 Computerized Accounting I
(3 credit, 3 lecture, 0 lab) Prerequisite: ACCT116

This course covers the installation, set up and operation of a computerized general ledger, accounts receivable, and accounts payable modules. This includes preparation and data entry of monthly transactions and financial statements.

ACCT214 Computerized Accounting II
(3 credit, 3 lecture, 0 lab) Prerequisite: ACCT213

This course covers the installation, set up and operation of a computerized payroll, inventory, and invoicing modules. This includes preparation and data entry of monthly transactions and appropriate reports.

ACCT246 Tax Accounting
(3 credit, 3 lecture, 0 lab) Prerequisite: ACCT105 or ACCT115

This course covers practices and procedures for state and federal income taxes for individuals, sole proprietorships and partnerships.

ACCT299 Directed Study
(variable credit) Prerequisites: Written departmental approval

See the Directed Studies description on page 123.

ALLIED HEALTH

AHEA100 Emergency Health Care
(2 credit, 2 lecture, 0 lab) Prerequisites: None

This course covers CPR and first aid for wounds, shock, burns, poisoning, etc. Students successfully completing the course qualify for American Heart Association Health Care Provider CPR.
AHEA105 Nurse Assistant
(5 credit, 2 lecture, 6 lab) Prerequisites: None

This course provides knowledge and skills required to provide basic patient care appropriately and safely. Upon successful completion of the course, the student can seek employment in acute-care, extended-care, or home-care facilities and be eligible to take the state Certified Nurse Assistant exam.

AHEA106 Dosages and Solutions for Nursing and Allied Health
(1 credit, 1 lecture, 0 lab) Prerequisite: MATH100 or a passing score on ASSET elementary algebra test

This course offers a clear and concise method of calculating medication dosages. Adult and pediatric medication calculations are included. The content includes how to read medication labels and physician orders relating to medications; convert metric, apothecary and household measurements; compute IV drip rates; reconstitute powders and administer heparin and insulin.

AHEA107 Data Collection & Decision Making (Skills for Nursing and Allied Health Students)
(1 credit, 1 lecture, 0 lab) Prerequisite: PN student, Health Career Student, or completion of an LPN or ADN program as amended 5/12/98

This course introduces various data collection techniques and procedures used in screening patient status. The data obtained from nursing assessments is related to the nursing process. Gordon's functional health patterns are used as a framework and guide for linking data findings and nursing diagnoses.

AHEA200 Emergency Medical Technician
(9.5 credit, 6 lecture, 7 lab) Prerequisites: None

This course includes orientation to EMT legal responsibilities, anatomy, physiology and pathophysiology, diagnostic signs, triage, basic cardiac life support, injuries to the body, illnesses of the body, childbirth, mental health, environmental injuries, communications, emergency vehicle operation and extrication. Upon successful completion, students are eligible to take the state of Michigan's examination for licensure as an Emergency Medical Technician.

AHEA202 Emergency Medical Technician/Specialist/Paramedic
(7 credit, 5 lecture, 4 lab) Prerequisites: AHEA200 or equivalent, Basic EMT License or instructor approval, passing score on ASSET numerical skills test, and current TB and HBV immunization.

This course includes orientation to EMT Specialist/Paramedic legal responsibilities, anatomy, physiology, a review of emergency medical technician aspects of care, acid base balance, body chemistry, intravenous therapy, fluid therapy, advanced airway management including endotracheal intubation, esophageal obturator airway, esophageal tracheal lumen airway, tracheal suctioning and magill forceps usage. Communications, cardiac monitor interpretation and recognition of cardiac dysrythmias are discussed. Upon successful completion, students are eligible to take the state of Michigan's examination for licensure as an EMT Specialist.

A student must be licensed as an Emergency Medical Technician to challenge state boards for specialist or paramedic licensure. Students without an EMT license must obtain EMT licensure and challenge specialist boards within one year of completion of AHEA202 to obtain a specialist license.

AHEA203 Paramedic Pharmacology
(4 credit, 4 lecture, 0 lab) Prerequisites: BIOL203 and AHEA202, Corequisite: AHEA204

This course introduces the actions, indications, contraindications, precautions, administration routes, dosages and side effects of medications that are commonly used in the pre-hospital setting.

AHEA204 Paramedic Cardiology
(4 credit, 4 lecture, 0 lab) Prerequisite: AHEA202, Corequisite: AHEA203

This course includes review of cardiovascular anatomy, physiology, and pathophysiology and the introduction to electrophysiology. The student learns to monitor an electrocardiogram and manage life threatening dysrythmias and cardiovascular emergencies.
AHEA205 Paramedic Clinical I
(4 credit, 0 lecture, 8 lab) Prerequisites: AHEA203 and AHEA204

This activity provides supervised clinical experiences in both hospital and pre-hospital settings. Clinical rotations include emergency department, advanced life support vehicle and respiratory therapy.

AHEA206 Paramedic Medical Emergencies
(3 credit, 3 lecture, 0 lab) Prerequisite: AHEA205, Corequisites: AHEA207 and AHEA208

This course includes a review of medical and respiratory emergencies and introduces paramedic-level intervention in the neonatal, infant, pediatric, adult, and geriatric patient.

AHEA207 Paramedic Traumatic Emergencies
(3 credit, 3 lecture, 0 lab) Prerequisite: AHEA205, Corequisites: AHEA206 and AHEA208

This course includes a review of traumatic emergencies and introduces paramedic-level intervention in the neonatal, infant, pediatric, adult, and geriatric patient.

AHEA208 Paramedic Clinical II
(3 credit, 0 lecture, 6 lab) Prerequisite: AHEA205, Corequisites: AHEA206 and AHEA207

This continuation of supervised clinical experiences in both hospital and pre-hospital settings is intended to further develop and build paramedic skills. Clinical rotations include an ICU emergency department, an advanced life support vehicle, geriatrics, pediatrics, labor and delivery, and a psychiatric unit.

AHEA299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

ANTHROPOLOGY

ANTH260 Cultural Anthropology
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course covers different cultures, particularly prehistoric ones, and includes food-gathering and settlement patterns, status and kinship systems, economic and political organization, religion, language, art, and special concepts and methods used by cultural anthropologists.

ANTH299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

ARTS

ARTS118 Art Materials and Methods Studio
(1 credit, 5 lecture, 5 lab) Prerequisites: None

This course examines the use of various materials and techniques to make art objects through films, examples and demonstrations.

ARTS120 Introduction to Art
(2 credit, 1 lecture, 2 lab) Prerequisites: None

This course combines instruction in design theory and art appreciation with studio work in a variety of two-and three-dimensional materials and techniques.

ARTS122 Drawing I
(3 credit, 1 lecture, 3 lab) Prerequisites: None

This course includes instruction in the basic drawing techniques of contour, gesture, shading, proportion and perspective. Studio work provides drawing experiences using a variety of subjects and materials.

ARTS123 Drawing II
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS122

This course further develops the drawing techniques of contour, gesture, shading and propor-
tion as they apply to the human figure. Students use a variety of materials to draw figures and portraits from models in the studio.

ARTS125 Painting I
(3 credit, 1 lecture, 3 lab) Prerequisite: None

This studio course includes basic instruction in color mixing and the techniques of painting with oils or acrylics. Studio work is in the student's chosen medium.

ARTS126 Painting II
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS125

This studio course emphasizes composition and color theory.

ARTS130 Ceramics I
(3 credit, 1 lecture, 3 lab) Prerequisite: None

This studio course includes instruction in the basic materials, techniques, and aesthetics of working in clay. Studio work consists of forming, decorating and glazing hand-built pottery and sculpture, and an introduction to basic techniques of throwing on the potter's wheel.

ARTS131 Ceramics II
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS130

This studio course emphasizes further development of hand-built and wheel-thrown forms and exploration of decorating, glazing and firing techniques.

ARTS150 Beginning Photography
(3 credit, 2 lecture, 2 lab) Prerequisite: None

This course introduces basic photographic techniques including camera use, developing, printing, enlarging and matting of black-and-white photographs.

ARTS155 Advanced Black & White Photography
(3 credit, 2 lecture, 2 lab) Prerequisite: ARTS150

This course is a continuation of ARTS150. It expands the elementary principles and skills learned to include methods of manipulating the finished image, such as toning and techniques of retouching, and the effects of exposure and development on black-and-white films.

ARTS160 Introduction to Graphic Design
(3 credit, 1 lecture, 3 lab) Prerequisite: None

This course introduces graphic design with an emphasis on the Macintosh computer as a production tool. Students explore two-dimensional design, typography, logo development, and advertising layout. Students gain experience in solving design problems using traditional tools and techniques and desktop publishing programs.

ARTS225 Art for the Elementary Teacher: Lecture and Studio
(2 credit, 1 lecture, 2 lab) Prerequisite: None

This course combines instruction in the practice and philosophy of teaching arts and crafts to children with studio work in a variety of materials and techniques suitable for their use.

ARTS227 Painting III
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS126

This studio course emphasizes exploration of traditional or experimental painting techniques.

ARTS228 Painting IV
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS227

This studio course emphasizes development of individual expression.

ARTS230 Watercolor Painting
(2 credit, 1 lecture, 2 lab) Prerequisite: None

This course includes basic instruction in color mixing and the techniques of painting with watercolor.

ARTS232 Ceramics III
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS131

This studio course emphasizes making more complex hand-built or wheel-thrown forms and learning kiln firing procedures.

ARTS233 Ceramics IV
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS232

This studio course emphasizes refining forms and develops knowledge of raw materials and glaze formulation.
ARTS250 Color Photography
(3 credit, 2 lecture, 2 lab) Prerequisite: ARTS150
This introduction to color photography covers techniques of film development, color printing, and color balance of color prints.

ARTS260 Graphic Design Applications
(3 credit, 1 lecture, 3 lab) Prerequisite: ARTS160
Students work on advanced design problems centered around the production of a unified body of work that is based on promoting a new company. Students use both traditional tools and the computer to design a complete promotional package for a fictional company.

ARTS299 Directed Study
(variable credit) Prerequisites: Written departmental approval
See the Directed Studies description on page 123.

AUTOMOTIVE TECHNOLOGY

AUTO220 Engine Tune-Up/Performance Update
(1 credit, 1 lecture, 0 lab) Prerequisite: Current Bureau of Automotive Regulation certification in the area of Engine Tune-up.
This course is a review and update of the operation, diagnosis, and servicing of the following automotive systems: 1) emission control systems, 2) computerized engine control systems, 3) conventional and advanced ignition systems, and 4) advanced fuel management systems. Successful completion of this course allows a technician to comply with the requirements for continuing certification as established by the Bureau of Automotive Regulation.

AUTO221 Electrical Systems Update
(1 credit, 1 lecture, 0 lab) Prerequisite: Current Bureau of Automotive Regulation certification in the area of Electrical Systems
This course is a review and update of the operation, diagnosis, and the servicing of the following automotive electrical systems: 1) starting and charging systems including battery service, and 2) chassis electrical systems including lighting, warning and driver information systems.

AUTO299 Directed Study
(variable credit) Prerequisite: Written departmental approval
See the Directed Studies description on page 123.

BIOLOGICAL SCIENCES

For each of the following science course descriptions, whenever the word “equivalent” is used, it shall be interpreted as meaning students must show evidence of possessing similar academic background, knowledge and skills as compared to the course for which the equivalency is being sought.

BIOL100 Biological Science
(4 credit, 3 lecture, 2 lab) Prerequisites: Passing scores on the ASSET tests, Pre- or Corequisite: ENGL100 or DVED175
This course provides a basic general education in some major biological sciences (botany, ecology, genetics and zoology) and a basis for relation to the total environment, enabling students to evaluate their interest and potential in the biological sciences.

BIOL103 Anatomy and Physiology I
(5 credit, 4 lecture, 2 lab) Prerequisite: BIOL100
This course introduces basic structural and functional aspects of the human body. The contribution of each body system to the total well-being of the individual and the interdependence of the body systems are emphasized. Specific topics include anatomical terminology, chemical basis of life, cells, tissues, cellular metabolism, integumentary system, skeletal system, muscular system, and nervous system. Emphasis is placed on homeostatic mechanisms whenever feasible. Laboratory exercises include dissection and physiological experiments pertinent to the lecture topics covered.
BIOL110 Botany
(4 credit, 3 lecture, 2 lab) Prerequisite: BIOL100

This survey of the plant kingdom includes plant structure, classification and ecological relationships. Students have an opportunity to submit a collection from the local flora and special attention is given to taxonomic principles and collection procedures along with the use of plant keys. Much of the class is spent out-of-doors.

BIOL115 Zoology
(4 credit, 3 lecture, 2 lab) Prerequisite: BIOL100

This course is a general survey of the animal kingdom including comparative studies of the structure, function and behavior of representatives of animal groups. The anatomy and physiology of the human is emphasized in the study of mammals.

BIOL121 College Biology I
(4 credit, 3 lecture, 2 lab) Prerequisites: Passing scores on the ASSET tests, Pre- or Corequisite: ENGL100 or DVED175

This is the first part of a two-semester college biology sequence designed for students planning to transfer to a four-year college or university. This part of the course emphasizes a review of the metric system, prokaryotes, cell structure and function, plant life, and ecology. The laboratory portion of this course provides students with the opportunity to experience and participate in hands-on exercises which emphasize learning through doing and learning from the experience of others.

BIOL122 College Biology II
(4 credit, 3 lecture, 2 lab) Prerequisite: BIOL121

This is the second part of the two-semester college biology sequence. Topics covered include chemistry, cellular respiration, genetics, and the systematic approach to animal diversity.

BIOL201 Microbiology
(4 credit, 3 lecture, 2 lab) Prerequisites: BIOL100 and PHYS101 or CHEM105 or CHEM220

This course is a study of the biology of various microorganisms including viruses, bacteria, fungi, and protozoa and offers the opportunity to observe the roles of these organisms in health and disease and their impact on everyday life. Laboratory exercises provide hands-on opportunities to grow and work with a variety of living microorganisms.

BIOL203 Anatomy and Physiology II
(4 credit, 3 lecture, 2 lab) Prerequisite: BIOL103 or an equivalent laboratory course

This continuation of BIOL103 covers the special senses, the digestive system, the endocrine system, the respiratory system, blood, the cardiovascular system, the lymphatic system, the urinary system, water and electrolyte balance, the reproductive system and human genetics. Laboratory exercises are performed throughout the semester and related clinical applications and pathophysiology are discussed when appropriate. Homeostatic mechanisms pertinent to current lecture topics are emphasized and the course offers the opportunity to observe a human cadaver display.

BIOL208 Nature Study
(4 credit, 2 lecture, 3 lab) Prerequisites: None

This field course provides a background of information enabling recognition of and some knowledge about many of the common plants and animals found in the local area. The laboratory used is the out-of-doors.

BIOL299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123,
BUSINESS ADMINISTRATION

BUSN135 Introduction to Business
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides an overview of American free enterprise and its functions and the role of business as an institution in society from both an historical and contemporary perspective. Topics include business organization, management, marketing, finance, legal and regulatory environment, and global opportunities.

BUSN200 Legal Environment of Business
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This introduction to the legal system and the common body of knowledge as it relates to the environment of business emphasizes business relations with society and government.

BUSN251 Customer Relations
(2 credit, 2 lecture, 0 lab) Prerequisites: None

This course explores the ways and means of making good first impressions, maintaining satisfaction, communicating effectively, handling complaints, and avoiding mistakes which offend customers and emphasizes face-to-face and telephone contacts. This course is normally offered only in spring semesters.

BUSN253 Principles of Investment
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This introduction to the securities market gives special attention to corporate securities, mutual funds, various financial instruments, security analysis and portfolio development.

BUSN260 International Business
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course is an overview of international business with a focus on how American firms function in the economic, social, cultural and political environments outside the US.

BUSN283 Business Strategy & Policy
(3 credit, 3 lecture, 0 lab) Prerequisites: This course should be taken during a student's final semester. Written instructor approval is required.

This course combines the fundamental knowledge and skills relating to the various business functional specialties previously learned. As such, this course becomes a capstone, a culmination of both experiences and education. The approach is from the point of view of a general manager, rather than from a functional (marketing, finance, etc.) point.

BUSN292 Field Experience
(4 or 5 credits, 0 lecture, 0 lab or 5 credit, 0 lecture, 0 lab) Prerequisites: 30 credits, a 2.0 GPA and departmental approval according to department standards

Enrolled students hold jobs related to their business field of study. Performance on the job is monitored and guided by the employer and college personnel. Attendance at one-hour weekly seminars, four hours per credit per week of work experience, and submission of a final report are required.

BUSN299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

MGMT235 Small Business Management
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course covers the processes and problems an entrepreneur encounters in starting a business venture and also examines the management practices necessary for running a successful enterprise.

MGMT237 Management
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course covers, in detail, the managerial process, the purposes of organizations and how they function, and human behavior as it relates to organizations.
MGMT250 Organizational Behavior
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides a background in human relations and behavior of individuals within an organizational environment, with emphasis on social and group influences.

MGMT299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

MRKT233 Principles of Marketing
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This introduction to marketing (the movement of goods and services from producer to consumer) emphasizes the behavior of buyers in the marketplace and the major functions of marketing and their impact on the national and international economy. This course is normally offered only in fall semesters.

MRKT234 Retailing
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This introduction to retailing includes buying and promoting, pricing, stocking goods, dealing with customers, and the process of setting up a retail firm.

MRKT248 Advertising
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course examines the role of advertising in society, the creation and planning of advertising, and effective promotional activities.

MRKT299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

CHEMISTRY

CHEM105 Introductory Chemistry
(4 credit, 3 lecture, 2 lab) Prerequisites: None

This course covers the basic topics of inorganic chemistry including metrics, types of bonds, gases, chemical reactions, solutions, acids, bases and salts.

CHEM220 College Chemistry I
(5 credit, 4 lecture, 2 lab) Prerequisites: None

This course covers the basic topics of inorganic chemistry and includes atomic models, nuclear chemistry, compound formation, stoichiometry, gas laws, solutions, reaction rates, acids and bases. This course is normally offered only in fall semesters PHYS101 or one year of high school chemistry is a recommended prerequisite.

CHEM221 College Chemistry II
(5 credit, 4 lecture, 2 lab) Prerequisite: CHEM105 with a B+ or higher grade or CHEM220

This course covers the basic topics of organic chemistry including alkanes, alkenes, alkynes, alcohols, ethers, phenols, thiols, amines, carboxylic acids and esters. Time permitting, brief lectures are given on lipids, carbohydrates and proteins. This course is normally offered only in spring semesters.

CHEM299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

COMMUNICATIONS

COMM125 Elementary American Sign Language I
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides students the opportunity to learn sign-language skills. It covers learning the alphabet, numbers and words, and interpreting sentences, songs and stories.
COMM126 Elementary American Sign Language II
(3 credit, 3 lecture, 0 lab) Prerequisite: COMM125

This continuation of COMM125 further develops the student's ability to sign words, numbers, sentences, songs and stories.

COMM160 Journalism
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This introductory course covers the basic techniques in writing, the principles of effective news writing, and a survey of newsroom organization and offers practical experience through laboratory sessions.

COMM210 Speech
(3 credit, 2 lecture, 1 lab) Prerequisites: None

This introductory course in public speaking provides practice in speaking with interest and purpose before an audience. By presenting a series of brief talks before peers, students become familiar with the basic principles of speech organization, preparation and delivery.

COMM225 Advanced American Sign Language I
(3 credit, 3 lecture, 0 lab) Prerequisite: COMM126

This course provides students the opportunity to learn advanced sign-language skills. Students build on vocabulary and syntax by interpreting sentences, songs, and pantomime stories by practicing in class.

COMM226 Advanced American Sign Language II
(3 credit, 3 lecture, 0 lab) Prerequisite: COMM225

This continuation of COMM225 further develops and builds vocabulary and syntax. Students demonstrate competencies by interpreting sentences, songs and stories in class.

COMM299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

COMPUTER INFORMATION SYSTEMS

CMIS100 Keyboarding
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This open-lab course is an introduction to the computer keyboard. The concept of typing the alphabet, numbers, and symbols by touch is stressed.

CMIS101 Computer Literacy
(2 credit, 1 lecture, 2 lab) Pre- or Corequisite: CMIS100 or departmental approval

This lecture and laboratory course is an introduction to computers as a basic tool. Emphasis will be on file management and word processing software. E-mail, Internet, spreadsheet, and database software will also be introduced.

CMIS102 Introduction to Windows
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS100

This course teaches students the fundamentals and skill necessary to adequately use Windows.

CMIS105 Typing I
(3 credit, 3 lecture, 1 lab) Prerequisite: CMIS101

This course is an introduction to and mastery of the computer keyboard (including the 10-key pad). Correct techniques are emphasized along with speed and accuracy development. Students learn to format letters, memos, tables and reports using word processing software. Basics of grammar and punctuation are introduced.

CMIS110 Introduction to Internet
(1 credit, 1 lecture, 1 lab) Prerequisite: CMIS101

This course helps students acquire the conceptual background and skills to become Internet literate. Students will focus on describing Internet terms, how the Internet has changed the world and the future of the Internet, communicating and researching using the Internet, and using multimedia capabilities.
CMIS115 Introduction to Computer Information Systems
(3 credit, 2 lecture, 2 lab) Prerequisites: CMIS101 and a passing score on ASSET reading skills test

This course covers basic concepts, principles and functions of the computer system, history and evolution of the computer and its current role in society. The function of applications software and an introduction to the use of standard applications software including word processing, spreadsheets, databases, and BASIC programming are included.

CMIS120 Computer Applications in Health Care
(3 credit, 2 lecture, 2 lab) Prerequisites: None

This course introduces nursing and allied health students to computer applications in health care and emphasizes basic computer literacy skills and hospital applications of computers. Students examine the use of computers in health care and the impact of technology on health care delivery. Course topics include computer hardware and software, computer applications in health care, future trends and ethical issues. Lab experience provides an opportunity to interact with a computer using various software packages.

CMIS125 Introduction to PCs and Spreadsheets
(1 credit, 0.5 lecture, 1 lab) Pre- or Corequisite: ACCT115

This course provides a brief introduction to the Windows operating environment used on personal computers and to the application of current spreadsheet software used by business and industry. Students are involved with problem solving and proper spreadsheet planning and development techniques for later use with spreadsheet accounting applications.

CMIS130 Introduction to Programming and Logic
(3 credit, 2 lecture, 2 lab) Prerequisites: CMIS101 and a passing score on ASSET numerical skills test

This course investigates problem solving using both QuickBASIC and Visual Basic. Emphasis is on decisions, looping, functions, arrays and formatting. Planning, testing, debugging and style are also examined.

CMIS135 Typewriting Improvement
(2 credit, 2 lecture, 0.5 lab) Prerequisite: CMIS100 or CMIS105

This course is for students wishing to improve typewriting speed and accuracy and includes pre-testing, diagnosing problem areas, typing extensive drills and post testing on the microcomputer.

CMIS140 Typing II
(3 credit, 0 lecture, 4 lab) Prerequisite: CMIS105

This open-lab course develops speed-building and production techniques focusing on formatting and proofreading. Correspondence, reports, tables and forms are prepared using WordPerfect.

CMIS145 Speed Writing I
(3 credit, 3 lecture, 1 lab) Prerequisite: CMIS105

This course teaches a working knowledge of an alphabetic speed writing system and develops skills in reading and fluency in writing and taking dictation. This knowledge can be applied to a professional setting or personal tasks.

CMIS150 Speed Writing II
(3 credit, 3 lecture, 1 lab) Prerequisite: CMIS145

This course reviews all speed writing principles. The concentration is on speed building, new matter dictation and mailable transcription.

CMIS152 Refresher Course in Gregg Shorthand
(2 credit, 2 lecture, 1 lab) Prerequisite: Shorthand experience

This course is for students who need review in the theory of Gregg Shorthand with emphasis on basic alphabetic principles, word beginnings and endings, blends, brief forms, and phrases. Students also take dictation and transcribe.

CMIS155 Business Mathematics
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on ASSET numerical skills test

This course deals with practical application of mathematics concepts and fundamentals in business situations. Topics include retail, accounting, finance and statistics. Many of the problems deal with solving equations through algebraic methods so students must have some algebra background.
CMIS156 Microsoft Word
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS101 or CMIS102

This open-lab course provides an introduction to Microsoft Word. Students create, edit, and print documents.

CMIS157 Microsoft Excel
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS101 or CMIS102

This open-lab course provides an introduction to Microsoft Excel. Students create and edit worksheets and charts.

CMIS158 Microsoft Access
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS101 or CMIS102

This open-lab course provides an introduction to Microsoft Access. Students create and manipulate databases.

CMIS159 Microsoft PowerPoint
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS101 or CMIS102

This open-lab course provides an introduction to Microsoft PowerPoint. Students create, edit, and run slide show presentations.

CMIS160 Introduction to WordPerfect for Windows
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS101 or CMIS102

This open-lab course provides experience using beginning features of WordPerfect for Windows.

CMIS165 Intermediate WordPerfect for Windows
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS105 or CMIS160

This open-lab course provides experience using intermediate features of WordPerfect for Windows. Students should have a basic knowledge of WordPerfect for Windows.

CMIS170 Advanced WordPerfect for Windows
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS165

This open-lab course provides experience using advanced features of WordPerfect for Windows. Students should have a broad knowledge of WordPerfect for Windows.

CMIS175 Microcomputer Applications
(3 credit, 2 lecture, 2 lab) Prerequisite: CMIS101

Standard business problems are considered using various software applications. Word processing, spreadsheet, database, and presentation software are introduced. Throughout the course, students prepare and present business reports and analyze and chart data.

CMIS180 Business Communications I
(3 credit, 3 lecture, 0 lab) Prerequisite: CMIS105

This course develops basic communication skills through a review of language structure with attention given to the basics of writing, English for business use, vocabulary, punctuation, capitalization, spelling and numbers.

CMIS185 Business Communications II
(3 credit, 3 lecture, 0 lab) Prerequisite: CMIS180

This course focuses on human relations, proper and concise word usage, the formation of effective sentences and paragraphs, and planning techniques for writing effective correspondence in business. Students use the computer to complete their assignments and communicate through electronic mail.

CMIS190 Records Management
(3 credit, 3 lecture, 1 lab) Prerequisite: CMIS175

This course presents the principles of the alphabetic, numeric, geographic, and subject systems of records management: records maintenance, decision-making, and career opportunities in the records management field. Students complete projects using database software on the computer.
CMIS200 Typing III
(3 credit, 0 lecture, 4 lab) Prerequisite: CMIS140
This open-lab course develops continued speedbuilding techniques and advanced-production typewriting techniques focusing on formatting and proofreading. Correspondence, reports, tables and forms are prepared using WordPerfect software.

CMIS205 Legal Terminology
(3 credit, 0 lecture, 4 lab) Prerequisites: None
This open-lab course is a study of legal terminology which is designed to assist legal secretarial and paralegal students in mastering legal terms. With an understanding of basic terms, students are prepared to pursue additional education in the legal environment.

CMIS210 Legal Office Procedures
(3 credits, 0 lecture, 4 lab) Prerequisites: CMIS105 and CMIS205
This open-lab course focuses on the duties and responsibilities of those working in the legal environment while being introduced to the legal system. Court and client documents and reports are prepared.

CMIS215 Medical Terminology
(3 credit, 0 lecture, 4 lab) Prerequisites: None
This open-lab course is a study of medical terminology and assists medical secretarial, nursing and science students in mastering medical terms. Students are prepared to pursue additional education in the medical environment.

CMIS220 Medical Office Procedures
(3 credit, 0 lecture, 4 lab) Prerequisites: CMIS105 and CMIS215
This open-lab course focuses on the duties and responsibilities of those working in the medical environment while being introduced to the procedures of the medical profession. Students develop a marketable skill in the use of computer software for the medical office.

CMIS225 Voice Transcription: Business
(3 credit, 0 lecture, 4 lab) Prerequisite: CMIS200
This open-lab course stresses development of business transcription skills with the operation of cassette tape transcribers at the computer. Typing proficiency, grammar and punctuation, and proofreading skills while creating business documents are emphasized.

CMIS230 Voice Transcription: Legal
(3 credit, 0 lecture, 4 lab) Prerequisites: CMIS200 and CMIS205
This open-lab course develops legal transcription skills using a cassette tape transcriber at the computer. Typing proficiency, grammar, punctuation, and proofreading skills while creating legal documents are emphasized.

CMIS235 Voice Transcription: Medical
(3 credit, 0 lecture, 4 lab) Prerequisites: CMIS200 and CMIS215
This open-lab course develops medical transcription skills using a cassette tape transcriber at the computer. Typing proficiency, grammar, punctuation, and proofreading skills while creating medical documents are emphasized.

CMIS240 Business Calculators
(3 credit, 0 lecture, 4 lab) Prerequisites: CMIS155 and CMIS125 or CMIS157 or CMIS175
This open-lab course emphasizes business math concepts. Students are introduced to the electronic calculator and micro-numeric keypad using Excel spreadsheets.

CMIS245 Advanced Document Processing
(3 credit, 0 lecture, 4 lab) Prerequisite: CMIS175
This open-lab course provides experience using beginning through advanced features of Microsoft Word. Desktop publishing is introduced.
CMIS250 Microcomputer Spreadsheets
(3 credit, 2 lecture, 2 lab) Prerequisite: CMIS175

This introduction to electronic spreadsheets using microcomputers covers popular spreadsheet applications using Microsoft Excel. Basic spreadsheet design, problem solving, functions, and charting are investigated.

CMIS255 Microcomputer Database Applications
(3 credit, 2 lecture, 2 lab) Prerequisite: CMIS175

This course introduces the concepts of database management and the application of a typical database system in various business applications using Microsoft Access.

CMIS260 Advanced Microcomputer Applications
(3 credit, 2 lecture, 2 lab) Prerequisites: CMIS250 and CMIS255

The use of integrated software applications is investigated using the Microsoft Office application. More advanced functions of Word, Excel, Access, and PowerPoint are investigated individually through integration techniques.

CMIS265 Systems Concepts/Design
(4 credit, 2 lecture, 4 lab) Prerequisite: CMIS260

This course details systems development methodology as applied to the analysis, design and implementation of manual and computerized systems and offers the opportunity to participate in the analysis and design of a simulated business system. Course topics include the role of the system analyst; system investigators; design of systems output, files, processing and controls; project management and implementation.

CMIS270 Office Administration
(3 credit, 3 lecture, 1 lab) Prerequisites: CMIS140 and CMIS175

This course emphasizes advanced-level office administration concepts needed in business and industry. Communications, information systems, presentation software, administrative support, human relations, time management, ethics, telecommunications, and professional development are stressed.

CMIS275 Desktop Publishing/WordPerfect
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS165

This open-lab course provides experience in producing documents with text and graphics using WordPerfect. Good design of documents is emphasized in addition to the mechanics of producing the document. Documents produced include reports, flyers, newsletters, graphs, charts, letterhead, brochures, business cards and certificates.

CMIS276 Desktop Publishing/Microsoft Word
(1 credit, 0 lecture, 2 lab) Prerequisite: CMIS156 or CMIS200

This open-lab course provides experience in producing documents with text and graphics using Microsoft Word. Good design of documents is emphasized in addition to the mechanics of producing the document. Documents produced include reports, flyers, newsletters, graphs, charts, letterhead, brochures, business cards, and certificates.

CMIS280 Desktop Publishing/PageMaker
(3 credit, 2 lecture, 2 lab) Prerequisite: CMIS115

Students learn the basics of graphic design and create reports, brochures, advertisements, and newsletters using PageMaker software.

CMIS290 Field Experience
(3 credit, 0 lecture, 0 lab) Prerequisite: Written departmental approval

This course consists of a carefully planned cooperative work experience in the office. Students must complete 12 hours per week of approved work experience arranged by the instructor and show evidence of satisfactory progress through employer reports and instructor visits to the office site.
CMIS292 Field Experience
(4 or 5 credit, 0 lecture, 0 lab) Prerequisite: Written departmental approval

This course consists of a carefully planned cooperative work experience in the office. Students must complete 16-20 hours per week of approved work experience arranged by the instructor and show evidence of satisfactory progress through employer reports and instructor visits to the office site.

CMIS299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

CONSUMER EDUCATION

CONSO33 Basic Income Tax Preparation
(5 credit, 5 lecture, 1 lab) Prerequisites: None

This H & R Block income tax course enables students with no prior knowledge to begin to gain a solid, working understanding of the intricacies surrounding most income tax returns through illustrated lectures, discussions and the practical use of tax forms. There are 27 three-hour classes. Students who successfully complete the course are awarded the H & R Block certificate of achievement. The five credit hours may be used only for general credit and are not applicable to any business requirement for one- to two-year business curricula.

CONS299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

COSMETOLOGY

COSM100 Introduction to Cosmetology
(3 credit, 3 lecture, 0 lab) Prerequisites: Completed and registered state board registration form with registration fee and passing score on ASSET reading skills test

This course is an orientation to the science of cosmetology and includes cosmetology laws and rules, sterilization and sanitation techniques and policies, the study of bacteriology pursuant to sterilization and sanitation, basic hair shaping and finger waving, shampoos and rinses, and scalp treatments.

COSM101 Beginning Hairstyling
(3 credit, 3 lecture, 0 lab) Prerequisite: COSM100

This course provides the basic theory of pin curl and roller placements and pin curl and roller setting patterns and covers style selection, curl placement, comb-out techniques, manicuring, and the correct use and care of all cosmetology equipment.

COSM102 Beginning Hair Cutting and Permanent Waving Theory
(3 credit, 3 lecture, 0 lab) Prerequisite: COSM101

This course provides further theoretical training in the basic art of hairstyling and introduces basic hair cutting, permanent waving and chemical hair relaxing. The course also covers basic electrical theory as it relates to cosmetology; the use and care of thermal and specialized electrical equipment; and theory pursuant to the care, styling and fitting of wigs and other hair goods.

COSM103 Beginning Hair Coloring and Professional Development Theory
(3 credit, 3 lecture, 0 lab) Prerequisite: COSM102

This course covers the basics of hair coloring and anatomy and physiology as related to cosmetology.
COSM110 Introduction to Cosmetology Lab  
(4 credit, 0 lecture, 8 lab) Corequisite: COSM100

This course provides laboratory experiences in the science of cosmetology and includes cosmetology laws and rules pursuant to sterilization and sanitation practices, procedures and policies. Students perform basic techniques used in hair shaping, finger waving, shampooing and hair rinses, and scalp and hair treatments and learn the safe use and care of all materials, implements and equipment used in the basic techniques.

COSM111 Beginning Hairstyling Lab  
(4 credit, 0 lecture, 8 lab) Corequisite: COSM101

This course provides further laboratory experience in finger waving, shampooing and scalp treatments and emphasizes pin curls, roller placements, setting patterns, and comb-out and manicuring techniques and procedures. Safety and sanitary techniques and procedures are stressed.

COSM112 Beginning Hair Cutting and Permanent Waving Lab  
(4 credit, 0 lecture, 8 lab) Corequisite: COSM102

This course provides further laboratory experiences in basic hairstyling and introduces haircutting, permanent waving, chemical hair relaxing and thermal styling. Basic electrical theory as it relates to cosmetology is applied and the use of thermal and specialized electrical equipment is practiced.

COSM113 Beginning Hair Coloring and Professional Development Lab  
(4 credit, 0 lecture, 8 lab) Corequisite: COSM103

This course provides further laboratory experiences in all basic areas covered in preceding courses and introduces basic hair coloring procedures, products, and techniques.

COSM200 Advanced Hairstyling  
(3 credit, 3 lecture, 0 lab) Prerequisite: COSM103

This course provides an introduction to cosmetic chemistry, facial treatments and facial makeup and a review of and further theory in advanced hairstyling and haircutting techniques. Methods of organization and operation of a dispensary and laboratory are also reviewed.

COSM201 Advanced Hair Coloring and Permanent Waving  
(3 credit, 3 lecture, 0 lab) Prerequisite: COSM200

This course is a continuation of advanced hairstyling with special emphasis on basic and advanced hair coloring techniques and principles. The study of trichology as it pertains to hair coloring and hairstyling is also introduced.

COSM202 Advanced Hairstyling II  
(3 credit, 3 lecture, 0 lab) Prerequisite: COSM201

This course reviews and continues to develop theoretical skills and knowledge in permanent waving. Salon management is introduced with special emphasis given to personal and professional development.

COSM203 Cosmetology Salon Management and Board Review Theory  
(3 credit, 3 lecture, 0 lab) Prerequisite: COSM203

This course provides further training in salon management techniques and a complete review of all the theory covered in both the 100- and 200-level theory classes. The course prepares students for the State Board Theory Licensing Examination.

COSM210 Advanced Hairstyling Lab  
(5 credit, 0 lecture, 10 lab) Corequisite: COSM200

This course provides laboratory practice in advanced hairstyling and haircutting techniques and dispensary and laboratory operation and organization and introduces skin care, facial makeup and facial treatment techniques.
COSM211 Advanced Hair Coloring and Permanent Waving Lab
(5 credit, 0 lecture, 10 lab) Corequisite: COSM201

This course provides further laboratory experiences in advanced hairstyling with emphasis on hair coloring and the use of trichology in relationship to the application of all products used in the cosmetology industry.

COSM212 Advanced hairstyling Lab II
(5 credit, 0 lecture, 10 lab) Corequisite: COSM202

This course provides further laboratory experiences and the development of the technical skills of hairstyling; haircutting; coloring; permanent waving; and hair, skin and nail care. The use of techniques and theories gained through the study of trichology are stressed and personal and professional development techniques are practiced.

COSM213 Salon Management and Board Review Lab
(5 credit, 0 lecture, 10 lab) Corequisite: COSM203

This course provides practical training in salon management techniques and professional ethics in the laboratory setting and reviews all practical experiences to prepare students for the State Board of Cosmetology Licensing Examination. Special emphasis is placed on the pre-board examination.

COSM250 Cosmetology Instructional Internship
(15 credit, 9 lecture, 22 lab) Prerequisites: Written departmental approval and current cosmetology license

This tutorial course is taught in an active school setting, giving experience in a variety of training situations. One student is enrolled at a time and is expected to devote approximately 28 hours per week throughout the 18-week course. Emphasis is on methods of presentation, record keeping, safety, regulations, and customer/student relations.

COSM299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.
CRIM120 Corrections Institutions/Facilities
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides a concentrated overview of correctional institutions and facilities. It is primarily for students intending to pursue a career in the criminal justice system and those already employed within the system. The course is also relevant to students pursuing a social science orientation. Students explore federal, state, county, and local facilities including maximum-, close-, medium-, and minimum-custody facilities. It addresses community facilities and coeducational facilities and the safety and security requirements and considerations related to each. Constitutional and managerial issues are stressed. The course includes historical developments, philosophy, sociological concepts and definitions and their application.

CRIM125 Police Administration and Operations
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course is for students pursuing careers in criminal justice or those already employed within the system. It explores the evolution of administrative theory with special emphasis on its impact and application at the operational level of law enforcement agencies.

CRIM130 Criminal Investigation
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course covers the basic principles of modern criminal investigation techniques including crime scene search, collection and preservation of evidence, follow-up investigation, police criminalistics, and court preparation and testimony.

CRIM135 Report Writing for Line Officers
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This course focuses on and provides the skills needed for the proper completion of forms used to document prisoner misconduct and other significant events in a criminal justice setting.

CRIM136 Communication in Criminal Justice
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course addresses the communication needs of persons working in the field of criminal justice. It approaches communication as a continuing process of receiving and transmitting information between individuals, groups, and agencies. The course focuses on the unique responsibilities of line officers to perceive, evaluate, document, and disseminate information in a variety of mediums. Students examine the relationship between oral, written, and multimedia communication and their appropriate use in criminal justice environments. The course is applicable for all criminal justice students.

CRIM137 PPCT Defensive Tactics
(2 credit, 1 lecture, 2 lab) Prerequisites: None

This course is designed to meet MLEOTC requirements for defensive tactics to prepare correctional officer training students for employment at a local corrections facility.

CRIM138 Emergency Intervention Techniques
(2 credit, 1 lecture, 2 lab) Prerequisites: None

This course addresses the essentials of responding appropriately to a wide variety of crisis situations in a custodial environment. It balances the unique needs of custody, care and control required in jail settings where the law, conflicting interests, human emotions, and discretion often collide. The course approaches various crisis situations as only one stage in a continuum of events and decisions which can be effectively managed to reduce trauma for all parties involved.

CRIM210 American Criminal Law
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course is for students seeking employment in the criminal justice system. It covers the historical development and philosophy of criminal law including legal definitions and concepts and their application to the criminal justice system.
CRIM220 Legal Issues in Corrections
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides an overview of state and federal law related to corrections with emphasis on constitutional issues and remedies for violations of rights. A wide range of policy considerations behind corrections law and administrative procedures are covered. Leading cases and court decisions and their impact on corrections are explored.

CRIM230 Juvenile Delinquency
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This introductory course is for students interested or already employed in the criminal justice system. It includes theories of delinquency causation, examination of the family relationship and juvenile delinquency, the juvenile justice system, and delinquency prevention programs.

CRIM235 Parole, Probation and Community Corrections
(3 credit, 3 lecture, 0 lab) Prerequisite: CRIM100 or CRIM110

This course reflects the criminal justice system's recent focus on intervention and prevention strategies for people who are at high risk for criminal behavior. Students are exposed to innovative community corrections programs employing technological advances and more traditional community resources. Examination of the roles and capabilities of federal, state, and local agencies is central.

CRIM240 Introduction to Security Systems
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course is for students employed or interested in a career in the broad field of public and private security administration. Topics range from application of technology to management styles affecting loss prevention.

CRIM250 Client Relations in Corrections
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course examines the dynamics of human interaction within correctional facilities. Human relations in general are presented to establish a basis for more specific examination of the unique and complex situation found in corrections. The meaning and impact of culture and the causes and influence of prejudice on clients and corrections staff is explored. Discussion focuses on values, ethics and professional responsiveness.

CRIM260 Client Growth and Development
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides an understanding of and sensitivity to the motivations and behaviors of correctional clients. Students review the general factors believed to be influential in human development then analyze specific problems of prisoners. The course includes prevention theories and intervention and treatment strategies.

CRIM290 Criminal Justice Practicum
(5 credit, 0 lecture, 0 lab) Prerequisite: Approval from the Dean of Occupational Education

This course is a planned program of internship, including observation, study, and work in selected criminal justice agencies. It supplements previous classroom study through participation in US or foreign criminal justice systems.

CRIM299 Directed Study
(variable credit) Prerequisites: Written departmental approval

See the Directed Studies description on page 123.
DRAFTING/DESIGN TECHNOLOGY

TDSN100 Technical Drafting
(3 credit, 1 lecture, 4 lab) Prerequisites: None

This laboratory/lecture course links the knowledge and manipulative skills needed for work with drafting instruments to create line work, lettering, geometric construction, sketching, multi-view projection, sectioning, basic dimensioning, and isometric, oblique and perspective projection.

TDSN102 Industrial Graphics Communications
(2 credit, 1 lecture, 1.25 lab) Prerequisites: None

This course allows development of the knowledge and skill necessary to accurately communicate ideas through freehand drawing. The course focuses on the use of freehand drawing to convey technical ideas, designs and details that would be typically found in an industrial setting.

TDSN105 Reading Engineering Drawings
(2 credit, .5 lecture, 1.75 lab) Prerequisites: None

This technical blueprint reading course with practical applications is structured around a workbook approach to learning with lecture sessions preceding workbook assignments. Topics include basic projection of views, lines, reading scales, sketching, isometric and oblique projection, sections, perspectives, threads, title blocks, stock lists and interpreting blueprints.

TDSN106 Layout and Precision Measurement
(2 credit, .5 lecture, 1.75 lab) Prerequisite: TDSN105

This technical blueprint reading course with practical applications is structured around a workbook approach to learning with lecture sessions preceding workbook assignments. Topics include geometrical and positional tolerancing and symbols, fits between mating parts, weldment blueprint reading and weldment assembly. Students are required to check manufactured parts against part prints with precision measuring devices.

TDSN110 Descriptive Geometry
(3 credit, 1 lecture, 4 lab) Prerequisite: TDSN100

This course consists of one hour of lecture and four hours of supervised laboratory instruction each week. Topics include projection of points, lines, and planes; revolution of objects; intersection of planes and solids; and projection of oblique and true view surfaces.

TDSN120 Shop Drawing
(2 credit, .5 lecture, 1.75 lab) Prerequisites: None

This course includes the basic principles and techniques of shop drafting and stresses the essentials of equipment usage, line work, lettering, isometric and oblique drawings, multi-view (orthographic) projection, geometric construction, basic auxiliary views, and basic dimensioning.

TDSN130 Technical Drafting II
(3 credit, 1 lecture, 4 lab) Prerequisite: TDSN100

This course includes one hour of lecture theory directly related to four hours of instructor-supervised laboratory each week. The course includes dimensioning, English and metric tolerancing, threads, fasteners, springs, representation of screws, nuts, bolts, dowels, and detailing of assembly drawings.

TDSN135 Tool and Die Design I
(2 credit, .5 lecture, 1.75 lab) Prerequisite: TDSN100 or TDSN120

This course is structured primarily for tool-and-die apprentice students. Lectures are followed by reinforcing laboratory sessions which consist of sketching sheet metal die components. Emphasis is not on line quality and technique, but on the communication of ideas and design graphically. Topics include basic discussion of tools, dies and punches, blanking force and standard die sets and die components with emphasis on drop-through blank dies. Students are required to maintain a notebook, which is reviewed by the instructor at the end of the course and returned for future reference.
TDSN136 Tool and Die Design II
(2 credit, 5 lecture, 1.75 lab) Prerequisite: TDSN135

This course is structured primarily for tool-and-die apprentice students. Lectures are followed by reinforcing laboratory sessions, which consist of sketching sheet metal components related to the classroom discussion. Topics include basic flat part progressive dies; compound blank and pierce dies; stock guides; pitch gauges; stock feeders; roller guides; ball bearing guide pins and bushings; strip layout; availability of various standard punches, dies, and components; and knowledge and review of tool-and-die standardized components and catalogs.

TDSN137 Tool and Die Design III
(2 credit, 5 lecture, 1.75 lab) Prerequisite: TDSN136

This laboratory and lecture course emphasizes sheet metal progressive draw dies. Emphasis is not on quality and technique, but on the communication of design ideas and components graphically. Topics include mathematical development of a product design into a flat blank pattern, progression of dies, development of draw and redraw stations, stock lifters, hydraulic assisted draw pads, press cushions and air pins and horizontal cams.

TDSN140 Plastic Mold Design I
(2 credit, 5 lecture, 1.75 lab) Prerequisite: TDSN100 or TDSN120

This course emphasizes the fundamentals of plastic molding, plastic product design, types of molds, toolmaking processes, equipment and methods, materials for model making and designing and drafting practices as well as compression and transfer molds, injection molds for thermoplastics, cold mold design, extrusion dies for thermoplastics, blow mold construction and design, mold design for expanded polystyrene, and special fixtures.

TDSN141 Plastic Mold Design II
(2 credit, 5 lecture, 1.75 lab) Prerequisite: TDSN140

This course is a continuation of TDSN140.

TDSN142 Plastic Mold Design III
(2 credit, 5 lecture, 1.75 lab) Prerequisite: TDSN141

This course is a continuation of TDSN141.

TDSN215 Product Design
(3 credit, 2 lecture, 3 lab) Prerequisites: TDSN100 and TDSN110

This course provides drafting technology students with the ability to analyze, design and develop solutions to mechanical design problems. The instructional approach encourages students to conceptualize and communicate using engineering graphics, mathematics and technical science emphasizing the manufacturability of a particular new product design.

TDSN230 Jig and Fixture Design
(3 credit, 1 lecture, 4 lab) Prerequisite: TDSN130

This course includes four hours of drafting practice and one hour of drafting lecture theory directly related to the laboratory work. The course includes the design of indexing jigs and milling fixtures. Use of standard components from various catalogs is also emphasized.

TDSN250 Introduction to CAD
(3 credit, 2 lecture, 2 lab) Prerequisites: None

This course is a combination of four hours of lecture and laboratory and consists of computer-generated graphics to include terminology, techniques and application of computer aided drafting (CAD) to engineering, tool design, architecture and electronics. Two-dimensional design drafting is stressed.

TDSN251 Advanced AutoCAD Applications
(3 credit, 1 lecture, 3 lab) Prerequisite: TDSN250

This hands-on course provides a concentrated overview of major features utilized by advanced users of AutoCAD software. In addition to an introduction to solid modeling (3D design), students are taught the techniques to enable them to customize menus, screens, and develop personal time-saving production routines commonly found in industry. Advanced drafting concepts, shortcuts, and an overview of CAD management are included in this course.

TDSN299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.
EARLY CHILDHOOD DEVELOPMENT

ECDV100 Introduction to CDA
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This class is for students planning to obtain a Child Development Credential through the CDA National Credentialing Program.

ECDV110 Child Development: Infants & Toddlers
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides students with knowledge of physical, cognitive, social, and emotional development in the prenatal, infancy, and toddler periods. Basic theories, developmental principles, and guidance techniques are presented. Students spend 16 hours observing infants and toddlers in the field.

ECDV120 Child Development: Preschoolers
(3 credit, 3 lecture, 0 lab) Prerequisite: ECDV110

This course provides students with knowledge of physical, cognitive, social, and emotional development during the preschool years. Basic theories, developmental principles, and guidance techniques are presented. Students spend 32 hours observing preschoolers in the field.

ECDV130 Infant/Toddler & Preschool Curriculum
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course explores the curriculum guides needed in an infant/preschool education concentrating on the social, emotional, creative, physical and intellectual skill development and needs of infants, toddlers, and preschoolers. ECDV110 or ECDV120 are recommended prerequisites.

ECDV140 Michigan Child Care Futures: Basics
(1 credit, 1 lecture, 0 lab) Prerequisite: Participants must own, operate, or be employed by a licensed family or group day care facility.

This course provides basic comprehensive training for family and group child-care providers. This meets the child development training requirements for state licensing standards for group and family child-care homes.

ECDV141 Michigan Child Care Futures: Advanced
(1 credit, 1 lecture, 0 lab) Prerequisite: ECDV140

This course provides advanced training for family and group child-care providers. This meets the child-development training requirements for state licensing standards for group and family child-care homes.

ECDV150 Administration of Early Childhood Programs
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides an in-depth study of the role of the early childhood program administrator in such areas as food service, health and safety; implementation and supervision of an early childhood program; and business techniques necessary to operate a successful early childhood program.

ECDV160 Children with Special Needs
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This comprehensive review of the various issues regarding young children with special needs includes the recognition of individual likenesses and differences among children, roles of teachers and parents as they relate to children with special needs are addressed. Also included are the implications of social and political policy on the process of mainstreaming young children in early childhood programs.

ECDV299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.
ECONOMICS

ECON215 Principles of Macroeconomics
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course provides an introductory exposure to macroeconomics. The course materials focus on the measurement of the national economy, gross national product, inflation and unemployment, and the principles for controlling the economy through taxes, spending, and monetary policy.

ECON216 Principles of Microeconomics
(3 credit, 3 lecture, 0 lab) Prerequisite: ECON215

This course introduces students to the basics of micro-economic analysis and international trade. The course illustrates the principles students employ in making economic decisions and the principles followed by industry. Students should be capable of further studies at another institution and be able to directly apply course work to a business environment.

ECON299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

EDUCATION

EDUC100 Introduction to Teaching
(2 credits, 1 lecture, 2 lab) Prerequisites: None

This introductory course provides an opportunity to explore the teaching profession through classroom observation, lectures, readings, and discussion. The course assists the student in the decision of whether or not to pursue K-12 teaching as a profession.

EDUC299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

ELECTRONICS TECHNOLOGY

ELEC100 Concepts of Electricity
(3 credit, 2 lecture, 2 lab) Prerequisite: A passing score on the ASSET pre-algebra concepts test

This course provides a working knowledge of electrical terminology, DC and AC circuits, and measurements and topics including schematic symbols, power, capacitance, inductance, transformers, relays and DC motors. Knowledge of high school algebra is recommended.

ELEC105 Electronic Fabrication
(1 credit, 0 lecture, 2 lab) Prerequisite: ELEC100

This course provides students an opportunity to develop skills of electronics soldering and interconnection technology. Competencies include practical knowledge and fundamental hand skills in the soldering and removal of terminal connections, axial lead components, integrated circuits and surface mount components.

ELEC110 Electrical Circuit Analysis I
(3 credit, 2 lecture, 2 lab) Prerequisite: ELEC100, Pre- or Corequisite: MATH120

This course emphasizes the analysis of passive electrical circuits. Network theorems are applied in both DC and AC applications and phasor analysis, the operator, poly phase circuits and equipment calibration are discussed.

ELEC120 Electronic Devices
(3 credit, 2 lecture, 2 lab) Prerequisite: ELEC110

This course includes many electrical and electronic components including inductors, capacitors, transformers, diodes, transistors, and integrated circuits. Applications such as filters, resonant circuits, and basic amplifier configurations are used to reinforce knowledge.
ELEC130 Digital Logic
(3 credits, 2 lecture, 2 lab) Prerequisite: ELEC100

This foundation course presents digital concepts in combinational and sequential logic. Topics include number systems, logic gates, flip-flops, registers and basic troubleshooting techniques. The course includes a survey of digital applications in computer systems and industrial control.

ELEC171 Computer Repair I
(3 credits, 1 lecture, 3 lab) Pre-or Corequisites: ELEC100 and CMIS102

This is the first of two courses that introduces students to entry-level skills used in personal computer repair. Topics include PC assembly; component specifications; installation and configuration of MS-DOS and Windows software; memory optimization; resolution of hardware and software conflicts; and keyboard, mouse, and laser printer maintenance. Lab time emphasizes hands-on use of computers and problem-solving techniques. Material is relevant to the A+ Certification Exam for computer technicians.

ELEC172 Computer Repair II
(3 credits, 1 lecture, 3 lab) Prerequisite: ELEC171; Pre- or Corequisite: ELEC130

This is the second course that prepares students in personal computer repair skills. Topics include installation and configuration of a floppy disk, hard disk, and CD-ROM drives; system memory, video cards; sound cards and Windows95. Also, resolving hardware and software conflicts, and an introduction to networking are covered. Lab time emphasizes hands-on use of computers and problem-solving techniques. Material is relevant to the A+ Certification Exam for computer technicians.

ELEC210 Electronic Circuits
(3 credit, 2 lecture, 2 lab) Pre- or Corequisite: ELEC120

This course presents electronic component applications and covers basic power supplies, regulated power supplies and amplifiers including audio, RF, and power types and some basic digital and pulse circuitry. Construction and analysis of these circuits and proper soldering and desoldering techniques are included in the laboratory experiments.

ELEC230 Digital Electronics
(3 credit, 2 lecture, 2 lab) Prerequisites: ELEC100, CMIS115 and MATH104

This course presents techniques used in building and analyzing digital circuitry and includes numbering and coding systems, digital logic gates, Boolean algebra, combinational and sequential logic circuits, and applications.

ELEC240 Microprocessors
(3 credit, 2 lecture, 2 lab) Pre- or Corequisite: ELEC120

This course is a continuation of ELEC230 and includes microcomputer basics and assembly language programming, interfacing memory, A/D converters and other I/O devices.

ELEC250 National Electrical Code
(2 credit, 2 lecture, 0 lab) Prerequisite: ELEC100 or current electrician license

This course is a study of the arrangement, indexing, content, and application of the National Electrical Code. It is for those with sound electrical/electronics training and experience and for electrician licensing needs.

ELEC251 Industrial Electrical Maintenance I
(2 credit, 1 lecture, 1 lab) Prerequisite: ELEC100

This course is for students who have an understanding of electrical basics and want to learn more about industrial motors and controls. Included is study of the National Electrical Code, wiring symbols and diagrams, motors, and basic control circuits.

ELEC252 Industrial Electrical Maintenance II
(2 credit, 1 lecture, 1 lab) Prerequisite: ELEC251

This course is for students who have a good understanding of basic industrial motor circuits. Included is study of the National Electric Code, timing circuits, speed control, reduced voltage starting and troubleshooting.
ELEC253 Industrial Electrical Maintenance III  
(2 credit, 1 lecture, 1 lab) Prerequisite: ELEC252

This course emphasizes the use, selection, set up and servicing of programmable controllers and provides an understanding of the programmable controller and its logic functions, its installation and troubleshooting.

ELEC254 Industrial Electrical Maintenance IV  
(2 credit, 1 lecture, 1 lab) Prerequisite: ELEC253

This course develops knowledge of programmable logic controllers by using them to program a robot. Also included is a study of robot types, components, safety, maintenance, and off-line computer programming.

ELEC299 Directed Study  
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

ENGL100 Freshman English I  
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading and writing skills tests

In this introductory-level course, students learn how to write college-level papers, employ standard documentation methods using both traditional and electronic resources, make short oral presentations, and read short academic essays with comprehension.

ENGL101 Freshman English II  
(3 credit, 3 lecture, 0 lab) Prerequisite: ENGL100

This extension of ENGL100 emphasizes incorporating research into written work and oral presentations, developing skills of analysis and critical thinking, developing skills of persuasion and argumentation, and developing ability to discuss concepts encountered in reading and research of social and cultural perspectives.

ENGL200 American Thought and Literature I  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course analyzes America's social and cultural values and conflicts through its literature, beginning with the Puritan period, continuing with the ages of reason and romanticism, and concluding with realism and the advent of naturalism.

ENGL201 American Thought and Literature II  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course surveys late 19th century and 20th century American literature.

ENGL212 Oral Interpretation  
(3 credit, 2 lecture, 1 lab) Prerequisites: None

This course covers performance literature in prose, poetry, drama, music, humor and cinema. Through analysis and performance of works, students increase understanding and improve their ability to communicate. Interpretive readings are related to other speech communication including public address, television and radio, theater, speech improvement, and teaching of literature.

ENGL220 English Literature from the Beginning to 1798  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This survey course stresses the works of English literature from old English to the late 18th century.

ENGL221 English Literature from 1798 to Present  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This systematic study of English literature emphasizes the principal authors of the 19th and 20th centuries. Readings and discussion include representative works and reviews of current critical attitudes.
ENGL230 Short Story  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course analyzes the strengths and limitations of the short story, stressing contemporary world literature. The course emphasizes social and cultural values and humans in crisis and investigates symbolism, irony, paradox and the structure of the short story.

ENGL235 Children’s Literature  
(3 credit, 3 lecture, 0 lab) Pre- or Corequisite: ENGL100

This course is a survey of literature for children in the elementary grades, aimed at developing techniques for using books with children, storytelling, and the criteria for book selection.

ENGL236 Youth Literature  
(3 credit, 3 lecture, 0 lab) Pre- or Corequisite: ENGL100

This is a survey of literature expressly created for youth in middle and high school age groups (12-adult). The study investigates methods, selection processes, criticism, applications, writing, education, publishing and illustration. A field component is required.

ENGL240 The Novel  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course examines the literary form of the novel, and various critical problems with and approaches to reading novels. The reading list changes from year to year, usually focusing on a particular theme.

ENGL250 Creative Writing  
(3 credit, 1 lecture, 2 lab) Prerequisite: ENGL100

This course discusses creative expression in traditional genres: short story, essay, drama, and extended fiction. Students collaborate in workshops to hone their skills.

ENGL260 Drama as Literature  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course is an introduction to drama as a literary form and requires the reading of representative writings of the period from classical times to present.

ENGL265 Introduction to Film  
(4 credit, 4 lecture, 0 lab) Prerequisite: ENGL100

The course is an introduction to the language, structure, history and narrative technique of film as a distinctive art form. Course work includes the reading of film theory and criticism, as well as viewing, discussing, and critically writing about short and feature-length films by major international directors.

ENGL270 Poetry  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course compares contemporary and classic examples of poetry to historically durable examples of structure and content.

ENGL280 A Survey of Black American Literature  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This is a chronological survey of Black American writing from 1760 to the present with emphasis on 20th-century poetry, fiction, drama and autobiography.

ENGL299 Directed Study  
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

FOOD SERVICE TECHNOLOGY

FSMT100 Introduction to Food Service  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides an introduction to the food service industry and covers the many divisions of the industry and their function and relationship to careers.
FSMT101 Food Service Safety and Sanitation
(2 credit, 2 lecture, 0 lab) Prerequisites: None

This course provides an in-depth analysis of the Occupational Safety and Health Act as it relates to the food service operator. In-depth analysis of individuals' roles in sanitation as they relate to food service and its customers are also covered.

FSMT110 Food Production Skills: General
(4 credit, 2 lecture, 4 lab) Prerequisite: FSMT101

This course presents the various food production methods geared toward quantity food production and covers basic terminology and special considerations of safety and sanitation in a hands-on experience. The course includes preparation of all types of meals.

FSMT120 Food Production Skills: Entree
(4 credit, 2 lecture, 4 lab) Prerequisite: FSMT101

This course is a continuation of FSMT110 with special emphasis on preparation of both luncheon and dinner entrees.

FSMT130 Meat and Portion Control
(2 credit, 1 lecture, 2 lab) Prerequisite: FSMT101

This course provides a study of meat and its relationship to menu and how costs can affect menus. Identification of meat cuts and their methods of preparation are covered with an emphasis on meat quality and its significance to customer satisfaction and profitability.

FSMT140 Nutrition and Menu Planning
(3 credit, 3 lecture, 0 lab) Prerequisites: None

The course illustrates normal nutrition and how food is absorbed into the body and includes menu planning with a special emphasis on nutritional value and menu attractiveness. Special projects in all areas of menu planning are included.

FSMT200 Equipment Design, Layout and Selection
(2 credit, 1 lecture, 2 lab) Prerequisites: None

This course covers the equipment and facilities available to the food service industry. A course project consists of the overall design and equipment layout for maximum productivity and the selection of the actual equipment based on desired function, quality and performance of a specific food service facility.

FSMT201 Food Service Management
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course describes the manager's role in the operation of a food service establishment and includes the study of people and their performance and management controls and their relationship to successful food service operation management.

FSMT210 Food Production Skills: Bakery
(4 credit, 2 lecture, 4 lab) Prerequisite: FSMT101

This continuation of FSMT110 and FSMT120 provides special emphasis on preparation of all baked products including cake and pastry decoration.

FSMT220 Food Production Skills: Catering
(4 credit, 1 lecture, 5 lab) Prerequisite: FSMT101

This course covers the types and methods of catering operations with special emphasis on planning menus and preparing hors d’oeuvres and other items appropriate for various themes.

FSMT230 Food Purchasing
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course covers the standards of quality and quantity in purchasing for all phases of the food service operation. The proper selection of food service equipment ranging from place settings in the dining room to kitchen equipment, all types of food and grocery selection, and standardized procedures for each purchase are also covered.

FSMT299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.
FOREIGN LANGUAGES

FREN120 Elementary French I
(4 credit, 4 lecture, 0 lab) Prerequisites: None

This course includes fundamental training in basic language skills stressing oral and written expression and aural comprehension and is offered to students with no French background or one year of high school French. Students electing this class should plan to take FREN121 the second semester.

FREN121 Elementary French II
(4 credit, 4 lecture, 0 lab) Prerequisite: FREN120

This course is a continuation of FREN120 Elementary French I.

FREN299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

SPAN130 Elementary Spanish I
(4 credit, 4 lecture, 0 lab) Prerequisites: None

This course is the first half of a two-semester beginning Spanish course designed primarily around conversational approaches to the language with instruction in the basics of Spanish grammar. Lectures and written exercises supplement an emphasis on oral recitation and classroom conversation along with an examination of pertinent aspects of Hispanic culture.

SPAN131 Elementary Spanish II
(4 credit, 4 lecture, 0 lab) Prerequisite: SPAN130

This course is a continuation of SPAN130 Elementary Spanish I.

SPAN299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

GEOGRAPHICAL SCIENCES

GEOG102 Physical Geography/Earth Science
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course examines the earth-sun relationship, climatic factors on the earth, the geographic grid, land forms, and rocks and minerals and covers skills in map reading and the study of the earth's natural resources and man's impact on these resources.

GEOG120 Environmental Geography
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course is an introduction to human use of the earth's surface and an inquiry into selected environmental problems from man's use of the physical landscape.

GEOG299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

HISTORY

HIST250 United States History to 1865
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course critically examines America's past from before the European takeover and domination of the North American continent until a young but increasingly powerful United States is ripped apart by Civil War. Conflicts between individualism and collectivism and nationalism and sectionalism and conflicts between social classes and ethnic groups are examined. Attention is given to social history, which involves the effort to explore history "from the bottom-up" through the eyes and everyday experiences of common, working-class people pre-occupied not with the great events of the day, but with the day-to-day business of living. This course focuses on America before the European invasion; native American cultures; early settlements; the variety of colonial experience and regional differ-
ences; independence, war, and nationhood; the Constitution; economic growth; an emerging American culture; territorial expansion and manifest destiny; nationalism and sectionalism; North/South Conflict; and the Civil War in an effort to contribute to the understanding of America's infancy and early youth.

HIST251 United States History Since 1865
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course is a continuation of HIST250 with a similar emphasis on social history and the conflicts between individualism and collectivism, social classes, and ethnic groups as well as new conflicts between liberals and conservatives, isolationists and imperialists and centralists and localists that remain today. The course focuses on racism, reconstruction, and Jim Crow; involvement; social, political and economic reform in the Progressive period; the World Wars; the Depression and the reform of capitalism; the Cold War and the age of affluence; the turbulent sixties; the self-indulgent seventies and the age of scarcity in an effort to understand the factors that influence America's present behavior.

HIST255 Michigan History
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course presents a broad overview of the history of the Wolverine State. Several themes; including immigration, exploration, technology, mobility, abundance and exploitation; are explored, especially as they relate to the broader picture of national history. Several important overlapping periods of Michigan history are examined in detail—from the early French explorations and fur trade through the British occupation, the logging boom, statehood, growth of commerce and shipping, agricultural development and the Age of the Automobile with the consequent industrialization and growth of the tourist industry. The course focuses on local aspects of the state's history as they relate to these themes and periods.

HIST257 20th Century World: History & Issues
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course presents a global view of the profound transformation of political, economic and international relations under the impact of the major wars and revolutions of this century. It stresses interactions between states and people, ideological and revolutionary conflicts, the evolution of the global balance of great powers, and economic development and global inequality.

HIST299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

HUMANITIES

HUMN200 Humanities I
(4 credit, 4 lecture, 0 lab) Prerequisites: ENGL100 and a passing score on the ASSET reading skills test

This course examines the artistic, literary and philosophical nature of man, integrating material from pre-Renaissance art, literature, music, philosophy and religion. This course is normally offered only in fall semesters.

HUMN201 Humanities II
(4 credit, 4 lecture, 0 lab) Prerequisite: HUMN200

This course emphasizes the modern (post-Renaissance) historical development of thought in art, literature, music, philosophy and religion. This course is normally offered only in spring semesters.

HUMN270 Issues in Leadership
(3 credit, 3 lecture, 0 lab) Prerequisite: Eligibility for Phi Theta Kappa membership

This course introduces students to current leadership theories and techniques so they will better understand themselves and their potential to lead others. Students construct individual leadership plans and explore their own leadership philosophies.
HUMN299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

INDUSTRIAL TECHNOLOGY

INDS100 Machine Tool Theory
(2 credit, 2.25 lecture, 0 lab) Prerequisites: None

This lecture course consists of the definition, history, operation, modern development and application of the various tool-room machines with emphasis on specific operations such as threading, taper turning, indexing, gear cutting, electrical discharge and electrochemical machining. Cutting-tool geometry, grinder selection and methods of checking hardness are included and the machinist handbook is reviewed and used as a reference throughout the course.

INDS102 Basic CNC Operation
(2 credit, 2.25 lecture, 0 lab) Prerequisites: None

This course provides hands-on experience in programming Computer Numerical Control systems used with machine tools. Course topics covered include circular and linear interpolation, absolute programming, Preparatory(G) and Miscellaneous (M) functions. Students write programs and transfer them on punched tapes to be used on a machine-tool simulator.

INDS104 Statistical Process Control
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This course includes a brief history of SPC, a few of the statistical concepts which support it, and an explanation of why it works and why it is becoming more popular. Sampling methods, control charts, case studies and tips for getting SPC started in the plant environment are emphasized.

INDS105 Statistical Problem Solving
(1 credit, 1 lecture, 0 lab) Prerequisite: IND104

This course includes a brief refresher on the basic statistical concepts learned in IND104, a more in-depth explanation of the relationship between process variation and process problems, and advanced application toward a better understanding of machine and process capability in terms of improvement through reductions in the common causes of variation. Problem-solving techniques for correcting process non-conformities are emphasized.

INDS110 Basic Pneumatics
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This course illustrates how work force and energy are applied to principles of pneumatics. Operating principles of reciprocation, positive displacement and rotary and dynamic air compressors are presented. Primary and secondary air treatment, including moisture removal, oil scrubbers, contaminant filtration and lubrication, are included. Components of pneumatic systems that are focused on are valves, logic devices, cylinders and air motors.

INDS111 Basic Pneumatic Trouble Shooting
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This course provides an overview of pneumatic systems. Use of schematic symbols and diagrams, proper installation of system components, planned maintenance of a pneumatic system, system diagnosis and step-by-step troubleshooting recommendations are included. Specific maintenance practices for air compressors, control valves, air motors, electrical components, and pneumatic/hydraulic hybrid systems are addressed.

INDS112 Pump Installation and Maintenance Fundamentals
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This course covers the basic pumping concepts, required maintenance of packing seals, maintenance and overhaul of centrifugal pumps, and concludes with maintenance essentials of rotary pumps.
INDS113 Hydraulic Trouble-Shooting Fundamentals
(1 credit, 1 lecture, 0 lab) Prerequisites: None

This course presents a review of hydraulic systems; use of schematic diagrams; proper installation procedures, cleanliness and safety; tubing cutting, bending and flaring practices; identification and selection of proper fluid and charging the system; planned system maintenance; specific repair/replacement recommendations based on system diagnoses; and troubleshooting valves, cylinders, pumps and motors.

INDS120 Plastics Technology
(2 credits, 2.25 lecture, 0 lab) Prerequisites: None

This course presents several types, characteristics and uses of modern plastics and includes demonstrations of handling, forming and blending techniques.

INDS121 Plastic Injection Molding
(2 credits, 2 lecture, 0 lab) Prerequisites: None

This course emphasizes proper set up, operation, adjustment, and minor repairs to an injection molding machine through classroom and hands-on experience. Common molding materials, their major characteristics, and the effects of recipe changes are also covered.

INDS130 Metallurgy and Heat Treatment
(2 credits, 2.25 lecture, 0 lab) Prerequisites: None

This course examines properties of metals and the tests to determine their use, chemical metallurgy, producing iron and steel, physical metallurgy, shaping and forming of metals, properties and nonferrous alloys, properties of steel, surface treatments, powder metallurgy, and classifications of steels. Stress, strain and strength of materials is also covered.

INDS140 Technical Writing for Business and Industry
(3 credits, 3 lecture, 0 lab) Prerequisites: A passing score on the ASSET writing skills test

This practical course covers technical writing style, format and techniques in order to organize, clarify, revise and prepare technical information. The course includes how to write effective memos, reports, procedures and technical documents by using proper format, grammar, and sentence and paragraph structure.

INDS155 Industrial Safety and First Aid
(2 credits, 2.25 lecture, 0 lab) Prerequisites: None

This course illustrates basic industrial safety practices and includes samples of lessons learned the hard way. Safety topics include fire, electrical, moving machinery, lifting, vision and hearing, and overhead work. An eight-hour basic first-aid section is taught by a certified American Red Cross instructor and successful students are eligible for Red Cross certification.

INDS220 Basic Machine Operations
(3 credits, 1 lecture, 3 lab) Prerequisites: None

This course focuses on the theory and practice in the basic operations of typical machine tools such as lathes, mills, drills, and grinders and the use of precision bench tools and layout equipment. The course provides practical knowledge of machine processes and basic machine shop skills.

INDS221 Advanced Machine Operations
(3 credits, 1 lecture, 3 lab) Prerequisites: IND5220

This course includes advanced machine operations on the milling machine, lathe and surface grinder and provides training in boring, taper turning, indexing and the set up and operation of a sine bar and turntable. Gaining of speed, accuracy and confidence on these machine tools is emphasized.
INDS253 Basic Fluid Power
(3 credit, 2 lecture, 2 lab) Prerequisites: None

This course provides a background in basic fluid power and covers hydraulic principles, cylinders, pumps, valves, reservoirs and accessories, fluids and pneumatic principles. Hydraulic and pneumatic symbols and formulas are stressed and laboratory work includes demonstrations and a series of 43 projects using specialized fluid power trainers.

INDS254 Advanced Hydraulics
(3 credit, 2 lecture, 2 lab) Prerequisite: INDS253

This course provides advanced hydraulics training and covers hydraulic motors, specialized hydraulic valves, servo systems accumulators, flow meters, closed loop systems, plumbing and sealing services, system design, trouble shooting, hydraulic symbols and formulas. Laboratory work includes demonstrations and a series of 20 projects using specialized hydraulic trainers.

INDS260 Manufacturing Processes
(2 credit, .5 lecture, 1.75 lab) Prerequisites: None

This course illustrates technological manufacturing methods currently in use. Course topics include computer-aided design and manufacturing, flexible manufacturing systems and cells, robotics in the work force, computer integrated manufacturing, computer numerical control, computer management systems, and various methods of manufacturing. Field trips to manufacturing sites are included and a research paper is required.

INDS270 Industrial Quality Control
(2 credit, 2.25 lecture, 0 lab) Prerequisites: None

This course defines the changing quality concepts of modern-day industry and further defines quality organization, quality costs, data collection, process control, customer relations and product reliability. The course encompasses theory and practical application of Statistical Process Control.

INDS271 ISO 9000
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course meets the needs of individuals interested in or involved with quality issues relating to products and services. It is equally relevant for individuals who are simply interested in the topic and those who will be involved in adopting and implementing quality systems within their company or corporation. Those who would benefit from the course are CEOs, managers, quality teams, laborers, apprentices and others desiring an understanding of modern quality standards.

INDS299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

MATHEMATICS

MATH050 Mathematical Bridges
(2 credit, 2 lecture, 1 lab) Prerequisites: None

This course explores basic mathematical concepts including arithmetic, problem solving, geometry, probability, statistics, and algebra using whole numbers and fractions. Students experience these concepts through hands-on models and by using technology at an elementary level.

MATH075 Transition to Algebra
(2 credit, 2 lecture, 1 lab) Prerequisite: A passing score on the ASSET numerical skills test or MATH050

This course explores mathematical concepts at a slightly higher level than MATH050 using appropriate models and technology. The course prepares students for MATH100 by allowing them to experience concepts in problem solving, geometry, probability, statistics, and pre-algebra.

MATH100 Elementary Algebra
(4 credit, 4 lecture, 1 lab) Prerequisite: A passing score on the ASSET numerical skills test or MATH075

This course studies beginning algebra concepts including first-degree equations and inequalities, quadratic equations, graphing linear equations, and an introduction to functions using a problem solving approach.
MATH 100A Elementary Algebra, Part 1
(2 credit, 2 lecture, 1 lab) Prerequisite: A passing score on the ASSET numerical skills test or MATH 075

This course is the first half of MATH 100 Elementary Algebra. The topics covered include an introduction to algebra, integers and rational numbers, solving equations and polynomial operations, all in a problem solving setting. Students must complete both MATH 100A and MATH 100B to have the equivalent of MATH 100. Students may not receive credit in both MATH 100A and MATH 100. This course is offered only in the fall semester.

MATH 100B Elementary Algebra, Part 2
(2 credit, 2 lecture, 1 lab) Prerequisite: MATH 100A

This course is the second half of MATH 100 Elementary Algebra. The topics covered include graphs, linear equations, systems of equations, inequalities, sets, and quadratics. Students must complete both MATH 100A and MATH 100B to have the equivalent of MATH 100. Students may not receive credit in both MATH 100B and MATH 100. This course is offered only in the spring semester.

MATH 104 Intermediate Algebra
(4 credit, 4 lecture, 1 lab) Prerequisite: MATH 100 or MATH 100A and MA 100B or a passing score on the ASSET elementary algebra test

This course provides the algebraic, numeric, and graphical skills necessary for the study of college algebra and analytic geometry. Topics covered include the usual topics through quadratics plus the exponential and logarithmic functions, sequences, systems of equations, and an introduction to probability.

MATH 104A Intermediate Algebra, Part 1
(2 credit, 2 lecture, 1 lab) Prerequisite: MATH 100 or MATH 100A and MATH 100B or a passing score on the ASSET elementary algebra test

This course is the first half of MATH 104 Intermediate Algebra. The topics covered include real number operations, solving equations and problems, systems of linear equations, inequalities, sets and polynomial operations. Students must complete both MATH 104A and MATH 104B to have the equivalent of MATH 104. Students may not receive credit in both MATH 104A and MATH 104.

MATH 104B Intermediate Algebra, Part 2
(2 credit, 2 lecture, 1 lab) Prerequisite: MATH 104A

This course is the second half of MATH 104 Intermediate Algebra. The topics covered include rational expressions and equations, irrational expressions, quadratics, exponential and logarithmic functions. Students must complete both MATH 104A and MATH 104B to receive the equivalent of MATH 104. Students may not receive credit in both MATH 104B and MATH 104.

MATH 110 Applied Algebra
(2 credit, 2.25 lecture, 0 lab) Prerequisite: A passing score on the ASSET numerical skills test

This course covers the algebra necessary for manipulating the formulas found in a shop setting, the use of calculators and some problem-solving techniques used in solving applied shop problems.

MATH 111 Applied Geometry
(2 credit, 2.25 lecture, 0 lab) Prerequisite: MATH 110

This course in plane geometry covers propositions and axioms, definitions, circles, area, and angular formulas. Volumes from solid geometry are also covered.

MATH 112 Applied Right Angle Trigonometry
(2 credit, 2.25 lecture, 0 lab) Prerequisite: MATH 111

This is a course in right triangle trigonometry as used in the machine trades. Functions, right triangles, and solving practical shop problems are included.

MATH 113 Applied Oblique Angle Trigonometry
(2 credit, 2.25 lecture, 0 lab) Prerequisite: MATH 112

This course details the use of oblique triangles and the trigonometry necessary to solve machine shop problems.

MATH 116 Managerial Mathematics
(3 credit, 3 lecture, 0 lab) Prerequisite: MATH 104 or a passing score on the ASSET intermediate algebra test

This is a study of mathematics relating to various business situations involving matrix algebra, sets, probability, linear programming, and statistics.
MATH120 Trigonometry
(3 credit, 3 lecture, 0 lab) Prerequisite: MATH104 or a passing score on the ASSET intermediate algebra test

The right triangle is studied to introduce the trigonometric functions. These functions are also studied as circular functions of real numbers. Other topics include algebra review, verifying identities, inverse functions, Law of Sines, Law of Cosines, complex numbers, and vectors. A graphing calculator is required for this course.

MATH151 Mathematics for Elementary Teachers I
(4 credit, 3 lecture, 2 lab) Prerequisite: MATH100 or a passing score on the ASSET elementary algebra test

This first course in a two-course sequence provides some of the necessary background to teach mathematics in the elementary school, including such subjects as the origin of systems of whole numbers, integers and rationals, measurement, probability and statistics. This course is offered only in the fall semester.

MATH152 Mathematics for Elementary Teachers II
(3 credit, 3 lecture, 1 lab) Prerequisite: MATH151

This second course in a two-course sequence provides some of the necessary background to teach mathematics in the elementary school, including such subjects as real numbers, plane and solid geometry, transformational geometry, set theory, and logic. This course is offered only in the spring semester.

MATH159 College Algebra
(4 credit, 4 lecture, 0 lab) Pre- or Corequisites: MATH120 or passing score on ASSET intermediate algebra test and written departmental approval

This course covers linear and quadratic equations and inequalities (singular and systems), relations and functions, matrices, exponential and logarithmic functions, complex numbers, polynomial and rational functions, polar and parametric equations, sequences, and series. A graphing calculator is required for this course.

MATH190 Elementary Statistics
(3 credit, 3 lecture, 1 lab) Prerequisite: MATH100 or a passing score on the ASSET elementary algebra test

This course introduces basic statistical concepts including mean, standard deviation, frequency, probability, binomial distribution, normal curve, sample means, confidence limits, hypothesis testing, and linear regression. Statistical analysis will be done using computer software. A graphing calculator with statistical analysis capability is required for this course.

MATH250 Calculus and Analytic Geometry I
(4 credit, 4 lecture, 0 lab) Prerequisites: MATH159 or passing score on the ASSET college algebra test and written departmental approval

This course covers functions, limits, continuity, differentiation, definite integrals, the Fundamental Theorem of Calculus, and applications of the derivative. A graphing calculator is required for this course.

MATH251 Calculus and Analytic Geometry II
(4 credit, 4 lecture, 0 lab) Prerequisite: MATH250

This course covers antiderivatives, definite integral applications, integration techniques, improper integrals, sequences and series, and differential equations. This course is normally offered only in spring semesters. A graphing calculator is required for this course.

MATH252 Calculus and Analytic Geometry III
(4 credit, 4 lecture, 0 lab) Prerequisite: MATH251 or written departmental approval

This course covers multivariable functions, vectors and analytic geometry, partial derivatives, multiple integrals, and their application. This course is normally offered only as independent study.
MATH290 Probability & Statistics
(4 credit, 4 lecture, 0 lab) Prerequisite: MATH250 or written departmental approval

This is a calculus-based course in probability and statistics. Topics covered include descriptive statistics, probability, random variables, estimation, confidence intervals, hypothesis tests, simple linear regression, ANOVA, and applications.

MATH299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

MUSIC

MUSI100 Fundamentals of Music
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course covers development of techniques necessary to the understanding and knowledge of music fundamentals and develops basic skills in reading and writing music, sight singing, ear training, rhythmic organization, and keyboard familiarity. This course is normally offered only in fall semesters.

MUSI101 Music Appreciation
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This introduction to the various styles of music increases the understanding, awareness and enjoyment of music through the development of proper listening habits and includes recordings and demonstrations. It is recommended students take MUSI100 in the fall semester before taking this course which is only offered in spring semester.

MUSI110 Music in the Elementary Classroom
(3 credit, 2 lecture, 1 lab) Prerequisites: None

This course increases awareness of music programs for the elementary grades and emphasizes creative experiences, use of appropriate materials and methods pertinent to the elementary classroom, and the development of music fundamentals.

MUSI141 Voice Improvement I
(1 credit, 0 lecture, 1 lab) Prerequisites: None

This class provides instruction concentrating on the basic techniques of singing. Students learn correct posture, breathing, support and tone production and experience many different styles of music.

MUSI142 Voice Improvement II
(1 credit, 0 lecture, 1 lab) Prerequisite: MUSI141

This class is a continuation of MUSI141.

MUSI143 Voice Improvement III
(1 credit, 0 lecture, 1 lab) Prerequisite: MUSI142

This class is a continuation of MUSI142.

MUSI144 Voice Improvement IV
(1 credit, 0 lecture, 1 lab) Prerequisite: MUSI143

This class is a continuation of MUSI143.

MUSI185 Special Ensemble I
(1 credit, 0 lecture, 2 lab) Prerequisite: Instructor permission

This course offers musically talented students an opportunity to further develop their talents in small vocal or instrumental ensembles. Literature is tailored to the capability of the students.

MUSI186 Special Ensemble II
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI185 or instructor permission

This course is a continuation of MUSI185 and offers students interested in the performing arts an opportunity to further develop musical talents. The small ensemble performs at several campus and community events throughout the academic year.

MUSI191 Choir I
(1 credit, 0 lecture, 2 lab) Prerequisite: Instructor permission

This course offers students interested in the performing arts an opportunity to further develop musical talents. The choir performs at several campus and community events throughout the academic year with opportunities to perform in small vocal ensembles.
MUSI192 Choir II
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI191 or instructor permission

This course is a continuation of MUSI191 and offers students interested in the performing arts an opportunity to further develop musical talents. The choir performs at several campus and community events throughout the academic year with opportunities to perform with small vocal ensembles.

MUSI195 Instrumental Ensemble I
(1 credit, 0 lecture, 2 lab) Prerequisite: Instructor permission

This course is for instrumentalists with previous band experience. The band performs at various concerts and community programs throughout the school year.

MUSI196 Instrumental Ensemble II
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI195 or instructor permission

This course is a continuation of MUSI195. The band performs at various concerts and community programs throughout the school year.

MUSI287 Special Ensemble III
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI185

This continuation of MUSI186 offers students interested in the performing arts an opportunity to further develop musical talents. The ensemble performs at several campus and community events throughout the academic year.

MUSI288 Special Ensemble IV
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI186

This continuation of MUSI287 offers students interested in the performing arts an opportunity to further develop musical talents. The ensemble performs at several campus and community events throughout the academic year.

MUSI293 Choir III
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI191

This continuation of MUSI192 offers students interested in the performing arts an opportunity to further develop musical talents. The choir performs at several campus and community events throughout the academic year with opportunities to perform in small vocal ensembles.

MUSI294 Choir IV
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI192

This continuation of MUSI293 offers students interested in the performing arts an opportunity to further develop musical talents. The choir performs at several campus and community events throughout the academic year with opportunities to perform in small vocal ensembles.

MUSI297 Instrumental Ensemble III
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI195

This continuation of MUSI196 is for instrumentalists with previous band experience. The band performs at various concerts and community programs throughout the academic year.

MUSI298 Instrumental Ensemble IV
(1 credit, 0 lecture, 2 lab) Prerequisite: MUSI196

This continuation of MUSI297 is for instrumentalists with previous band experience. The band performs throughout the academic year.

MUSI299 Directed Study
(Variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

NURSING

NURS101 Fundamentals of Nursing Care
(5 credit, 2 lecture, 5 lab) Prerequisite: Admission to the nursing program

This course introduces students to the basic human needs. Biophysical needs for safety, rest, comfort, mobility, elimination, nutrition, and hygiene are studied. Psychosocial needs for safety and security, love and belonging, self-esteem, and self-
actualization are presented. The motivational tasks of aging with discussion of death, dying and the grieving process are studied. Facilitating the client's adaptation through use of the nursing process is discussed with regard to the needs listed above. This course begins the student's socialization process into the nursing profession. Instruction includes lecture, campus lab and clinical lab. Directed learning provides students the opportunity to apply course concepts in specific situations. Basic nursing skills are introduced in campus lab. Universal precautions and skills integrated with the basic needs of human kind are demonstrated and practiced.

NURS103 Nursing of the Adult Client I
(5 credit, 2 lecture, 8 lab) Prerequisite: Successful progression from previous nursing courses

This course introduces students to adult clients in a variety of health care settings. The nursing process is applied to clients based on assessment of functional health patterns. Course content is focused on the needs of clients having problems of discomfort, infection, elimination, and sensory perception/alteration, and clients' pre-, peri-, and post-surgical intervention. Discussion of clients with cancer, renal problems, HIV alterations in nutrition and impaired skin integrity is included. Classroom discussions are applied to the client in a clinical setting. Learning experiences in the campus laboratory increase students' knowledge and abilities in nursing procedures. The clinical lab experience takes place in the extended-care facility and the acute-care hospital and provides students with experiences to apply the knowledge of course content and nursing procedures in the care of adult clients.

NURS105 Nursing Care of the Adult Client II
(6 credit, 3 lecture, 6 lab) Prerequisite: Successful progression from previous nursing courses

This course presents the more common medical and surgical conditions and interventions involved in providing nursing care. The course utilizes the nursing process for assessing and meeting the total needs of the adult client having problems with altered respiratory, cardiovascular, musculoskeletal and gastrointestinal systems. It integrates knowledge of pharmacology, nutrition, anatomy and physiology in understanding varied health problems. It discusses disease prevention, health maintenance and wellness, and man's adaptation to the environment. The clinical component applies the classroom theory and incorporates critical thinking in the actual care of clients in the clinical setting. Students are taught, assisted and supervised in performing previously taught skills in a safe and professional manner.

NURS111 Nutrition and Diet Therapy in Nursing
(2 credit, 2 lecture, 0 lab) Prerequisite: Successful progression from previous nursing courses

This course helps students involved with health care to become more aware of the basic knowledge, understanding, and application of the science of nutrition. The relationship between nutrition and the community environment, nutrition through the life cycle, and diet therapy are explored within the scope of the nursing process. Development of the ability to make practical application of sound nutrition principles and the importance of education in maintenance of optimum health are basic goals of the course.

NURS119 Nursing Care of the Adult Client III
(5 credit, 2 lecture, 6 lab) Prerequisite: Successful progression from previous nursing courses

This course addresses the more complex medical and surgical conditions and the pertinent nursing interventions. The nursing process is utilized for assessing and meeting the total needs of the adult client having alterations of the neurological and endocrine systems. Techniques are included for integrating physical assessment skills. The student advances from basic to systematic assessment to determine the general adaptive, interactive and developmental characteristics of the individual's wellness or illness. The clinical practicum provides the environment for application of classroom theory. Critical thinking skills are enhanced by integrating assessment skills. Increased awareness and participation as a health care provider are stressed.
NURS121 Introduction to Concepts of Communication in Nursing  
(2 credit, 2 lecture, 0 lab) Prerequisite: Successful progression from previous nursing courses

This course assists the student to become a more efficient practitioner of communication. The student practices interviewing skills and observes, discusses and begins to develop therapeutic communication skills for both formal and informal settings. Types of learning and teaching styles are addressed. The nursing process is used in client teaching. Reporting and recording skills are based on the nursing process. Use of computers in the professional role will include communication and legalities.

NURS126 Nursing Issues and Trends  
(.5 credit, .5 lecture, 0 lab) Prerequisite: Successful progression from previous nursing courses

Current issues and trends in nursing related to education, nurse practice acts, and professional organizations are explored in this course. The role of the licensed practical nurse as an integral part of the health care team is identified. This course assists the student in learning methods to make a successful transition from student to practitioner.

NURS147 Nursing Care of Children  
(3 credit, 1.5 lecture, 3 lab) Prerequisite: Successful progression from previous nursing courses

The primary focus of this introductory course is on assisting children to attain an optimal state of wellness, taking into consideration their individual strengths and weaknesses. The use of the nursing process in the planning of care is included in promotion of growth and development of the well child, prevention of disease, and care of the hospitalized child. The importance of family dynamics is also stressed.

NURS163 Pharmacology in Nursing  
(2 credit, 2 lecture, 0 lab) Prerequisite: Successful progression from previous nursing courses

This course presents the basic concepts of pharmacology in a systems approach based on knowledge gained from anatomy and physiology. The drugs are presented as they affect various body systems. The nursing process is applied to an understanding of the physiological actions of drugs in the body. Nursing responsibilities are emphasized as the student learns the importance of assessing drug interactions, dosage effectiveness and side effects.

NURS200 Role Transition  
(2 credit, 2 lecture, 0 lab) Prerequisite: A valid unencumbered LPN license in good standing.

This course facilitates the student’s adaptation to the Associate Degree nurse role. The content includes discussion of transition, personal and professional growth, student role and stress reduction. Other content gives the student an opportunity to update critical thinking skills and use of nursing process and a chance to update nursing assessment skills.

NURS227 Community Mental Health  
(5 credit, 2 lecture, 6 lab) Prerequisite: Successful progression from previous nursing courses

This course introduces the student to human psychosocial-social adaptation to stressors in the environment. Treatment modalities such as family therapy, behavior modifications, and reality orientation and medical and nursing interventions are presented. The nurse, using the nursing process to work with patients with varying degrees of dys-
function in a wide variety of settings, is discussed. The student works with clients in a mental health center, substance abuse center, and/or a hospital setting. The content is focused on helping students enhance their understanding of human behavior during both sickness and health and to acquire skill in interpersonal relationships and communication, as well as assessment and intervention for many mental health issues.

NURS246 Advanced Nursing Care of the Child-Bearing Family
(3 credit, 1.5 lecture, 3 lab) Prerequisite: Successful progression from previous nursing courses

This course introduces the significant components of critical thinking that maternal/newborn nurses use in their everyday practice. It includes an in-depth study of the physiological and psychological aspects of contemporary maternal/newborn nursing while preparing the student for a holistic approach to care. Through a review of normal antepartum, intrapartum, postpartum, and neonatal nursing are included, the primary focus is on the development of nursing goals and interventions for the care of the high-risk mother and infant through the various stages of the childbearing process.

NURS247 Advanced Nursing Care of Children
(3 credit, 1.5 lecture, 3 lab) Prerequisite: Successful progression from previous nursing courses

This course provides an overview of the nursing of children from a child-centered perspective that views children as unique individuals rather than miniature adults. The focus of nursing care is on prevention of illness and promotion of health. A theoretical basis for performance of a pediatric physical and developmental assessment are included. The development of nursing goals and interventions essential for the care of children and their families at different developmental levels and with various acute and chronic illnesses are discussed.

NURS253 Advanced Medical-Surgical Nursing
(10 credit, 4 lecture, 12 lab) Prerequisite: Successful progression from previous nursing courses

The primary focus of this course is on assisting the adult who is acutely or chronically ill or has multiple health problems to attain an optimal state of wellness in a variety of health care settings. The nursing process is used in determining appropriate nursing interventions to assist the client and family in their holistic adaptive responses to illness and stress. The nurse’s role in disease prevention, health maintenance and teaching is emphasized. Advanced assessment skills are included for the provision/management/coordination of client care to facilitate the maintenance and promotion of health. Critical thinking and decision-making skills are utilized in the delivery of client care. Content is designed to build upon the theory learned in prerequisite courses and will enable the student to apply previously learned knowledge and skills.

NURS257 Leadership and Management
(3 credit, 1 lecture, 4 lab) Prerequisite: Successful progression from previous nursing courses

This course assists the student to successfully make the transition from student to practitioner and effectively manage care of a group of clients in today's complex and rapidly changing health-care setting. In addition to addressing managed care, the course assists the student, using the framework of the nursing process, to develop professional nursing leadership skills. Special responsibilities of the leader/manager are described and practiced in the clinical setting. Decision-making skills, critical thinking, conflict resolution and delegation legalities are topics examined in the role of the professional nurse. Ethical and legal responsibilities are discussed as are aspects of professional growth and future direction for nursing leadership and management.
NURS260 Understanding Research
(2 credit, 2 lecture, 0 lab) Prerequisites: None

This course assists students in acquiring competencies necessary to critically read, evaluate, and interpret the findings of research studies that bear on the profession and practice of nursing. Students are introduced to techniques that facilitate the explicitness, precision, control and quantification of data collection and analysis required in conducting research. Both qualitative and quantitative research are addressed.

NURS299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

PARALEGAL STUDIES

PARA100 Introduction to Paralegal Studies
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course provides a broad overview of paralegal services and is primarily for students intending to pursue a career in law, short of becoming a lawyer. The course explores paralegal duties, responsibilities and challenges and has relevance to all students interested in the legal system. Career opportunities, practical applications of legal philosophy and research methodology, and related subjects are included. A key part of the course focuses on developing an appreciation of the American legal system’s processes and operations. Students are also exposed to legal research, terminology, and legal writing. This course is normally offered only in fall semesters.

PARA110 Legal Research and Writing
(3 credit, 3 lecture, 0 lab) Prerequisite: ENGL100

This course teaches students the sources of law and how to research legal issues using these sources. The course requires students to write a legal memorandum and a legal brief using the required format for each paper. Students also learn how to analyze legal issues and prepare careful, crafted, written presentations of their research and analysis.

PARA200 Estates, Wills and Trusts
(3 credit, 3 lecture, 0 lab) Prerequisite: PARA100

This course trains the prospective paralegal in the administration of estates, wills and trusts. Duties and responsibilities that can be performed by the paralegal under the supervision of an attorney are emphasized. Appropriate federal and state tax laws are also introduced. This course is normally offered only in spring semesters.

PARA210 Tax Law
(3 credit, 3 lecture, 0 lab) Prerequisites: PARA110 and BUSN200

This course is an in-depth treatment of taxation of business enterprises and emphasizes federal taxation of corporations, shareholders, partnerships and partners. It is required for the paralegal associate degree, but is designed for any student desiring an advanced course in federal taxation.

PARA215 Litigation I: Pretrial Matters
(3 credit, 3 lecture, 0 lab) Prerequisite: PARA100

This is the first of two courses that familiarize students with the litigation process. It provides students an in-depth study of pretrial considerations necessary for litigation including jurisdiction, venue, statutes of limitations, pleas, discovery and other pretrial matters. This course is normally offered only in fall semesters.

PARA216 Litigation II: Trial and Appellate Procedures
(3 credit, 3 lecture, 0 lab) Prerequisite: PARA215

This continuation of PARA215 provides an in-depth study of trial considerations and procedures. Evidence, interviews, client preparation, jury selection, arguments, instructions to the jury, verdicts and other pertinent trial-related activities are covered with an emphasis on the role of the legal assistant in trials and appeals. This course is normally offered only in spring semesters.

PARA217 Domestic Relations Law
(3 credit, 3 lecture, 0 lab) Prerequisite: PARA100

This course provides students an overview of the legal system’s involvement in the area of family law and relations.
PARA219 Administrative Law  
(2 credit, 2 lecture, 0 lab) Prerequisite: PARA216

This course provides students an overview of administrative law and entitlement programs.

PARA290 Paralegal Practicum  
(3 credit, 0 lecture, 0 lab) Prerequisites: PARA110, PARA215 and the practicum coordinator’s approval

This course is a planned program of internship that must include 12 hours per week of work experience, observation and study in a legal environment. It is intended to extend the student’s understanding of the legal system through a hands-on application of previous classroom study.

PARA299 Directed Study  
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

PHILOSOPHY

PHIL220 Introduction to Philosophy  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This chronological survey of Western philosophy examines the ways in which thinkers have dealt with fundamental questions over the past 2,500 years. Examples of Eastern thought serve as points of reference and contrast to contemporary European and American positions. HUMN200 is recommended as a prerequisite.

PHIL221 Philosophy of World Religions  
(3 credit, 3 lecture, 0 lab) Prerequisites: PHIL220 or HUMN200 and HUMN201

This course is a survey of World Philosophies and Religions. It is dedicated to the idea that philosophy is not the exclusive province of the West. The exploration of other thought, notably Native American, Asian and Middle Eastern, provides an opportunity to appreciate the uniqueness of other cultures while drawing upon the universal experience of the inner person. In addition, this study includes an inquiry into the age-old philosophical adventures of self identity, the aim of life, the quest for truth, the search for reality, and the experience of spirituality or religion.

PHIL222 Bioethics  
(3 credit, 3 lecture, 0 lab) Prerequisites: None

This course covers some of the major ethical theories and their relevance to the decision-making process in the biological or health-care related fields including issues related to conception and birth, life and death, and individuals' rights.

PHIL299 Directed Study  
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

PHED101 Golf  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course introduces the fundamental skills of golf. It offers a general overview of all aspects of the game and provides a foundation of the basic skills and knowledge required to help students pursue recreational enjoyment of golf.

PHED102 Bowling  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course introduces the fundamentals of bowling including equipment selection, stance, approach, delivery, scoring and rules.

PHED103 Personalized Body Conditioning  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course provides the knowledge to condition the body through a supervised program consisting of the basic principles of total fitness and exercise with emphasis on heart-rate monitoring.

PHED104 Archery  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This hands-on course teaches the beginning skills of archery for students interested in learning a new and challenging sport.
PHED105 Sports Fundamentals  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course provides the basic, general knowledge needed to more fully enjoy watching and participating in volleyball, basketball, softball, racquetball, and badminton. Students are given a broad overview of each sport and its rules and skills.

PHED106 Volleyball  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the basic skills of volleyball, its history, an understanding of the game and its rules, terminology, offensive and defensive systems, and mental/physical readiness including warm-up exercises.

PHED107 Cross Country Skiing  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the fundamental principles of cross country skiing. This includes use and maintenance of clothing and equipment. Basic skills are learned in the field and on trails.

PHED108 Social Dancing  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course introduces the basic steps in modern social dancing including swing, fox-trot, cha-cha, waltz and disco and the courtesies necessary for developing poise and confidence on the dance floor.

PHED109 Folk Dancing  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This general course develops skills and techniques in the various country and folk dances.

PHED110 Introduction to Physical Fitness  
(1 credit, 1 lecture, 1 lab) Prerequisites: None

This course provides a generalized overview of physical fitness bringing together terms often seen in print separately but seldom explained in relationship to each other such as cardiovascular, aerobics, stress, cholesterol, nutrition and lifetime sports. Students assess their own fitness level and develop individualized lifelong plans for improved health.

PHED111 Karate I  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the basic kicks, punches and blocks of karate.

PHED112 Karate II  
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED111

This is a continuation of PHED111. Students completing this course are encouraged to attempt the tests for their lower-degree belts.

PHED113 Cross Country Skiing/Beginning Tennis  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course allows participation in winter and spring activities. Fundamental cross country skiing principles are learned in the first half of the spring semester and the basic skills of tennis are learned in the second half.

PHED114 Personal Self-Defense  
(1 credit, 1 lecture, 1 lab) Prerequisites: None

This course covers basic self-defense strategies in avoiding potential dangers. Methods of instruction include techniques for avoiding and averting physical harm and the presentation and discussion of concepts and philosophies about personal self-defense.

PHED115 Advanced Personal Self-Defense  
(1 credit, .5 lecture, 1 lab) Prerequisite: PHED114

This course covers advanced techniques in personal self-defense using methods found in Karate, Judo, Aikido, Kendo and other martial art forms.

PHED116 Racquetball  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the fundamental skills and knowledge of rules needed to play racquetball for fun and fitness.

PHED117 Basketball Fundamentals  
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the basic skills of basketball, terminology, offensive and defensive systems, and mental and physical readiness for the game.
PHED118 Bicycling
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches how to select, adjust, maintain, and use equipment properly. Students also learn safety and riding techniques.

PHED119 Beginning Tennis
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the basic skills of tennis including service and forehand and backhand ground strokes. Students also learn the rules and strategy of the game. A class tournament is held during the last week of class.

PHED120 Intermediate Tennis
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED119

This course refines the basic skills of tennis including service and forehand and backhand ground strokes and covers the rules and strategy of the game. A tournament is held during the last week of class.

PHED121 Advanced Tennis
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED120

This continuation of PHED120 allows participants to advance the basic skills acquired.

PHED122 Beginning Skiing
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the basic ski maneuvers through wide-stance parallel turns and includes information on ski maintenance, waxing, and different types of skis, bindings and ski equipment.

PHED123 Intermediate Skiing
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED122

This course includes all intermediate ski maneuvers with special emphasis on parallel skiing, an introduction to ski racing and information on ski maintenance, skis and bindings.

PHED124 Advanced Skiing
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED123

This course teaches the fundamentals of ski instruction and advanced ski techniques and consists of the theory of ski mechanics, theory of teaching skiing, theory of basic ski maneuvers, practice teaching and advanced ski techniques.

PHED125 Beginning Judo
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course introduces the basic principles of the sport of Judo. The student traces the historical development from its origins 600 to 1,000 years ago in Asia to its development as a modern Olympic sport. Emphasis is placed on learning the basic throwing, holding, falling and submission techniques practiced in the sport and the rules which govern competition. The student gets a unique look at the Japanese culture by understanding the development and practice of its national sport which the Japanese call "the gentle way."

PHED128 Tae Kwon Do I
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course teaches the basic kicks, blocks and punches and patterns of the Korean martial art, Tae Kwon Do.

PHED129 Tae Kwon Do II
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED128

This course is the advanced instruction of Tae Kwon Do. In addition to rehearsing kicks, blocks, punches and basic patterns, the student learns to combine techniques into meaningful groupings to be used as methods for self-defense and Olympic-style point fighting.

PHED130 Beginning Swimming
(1 credit, 0 lecture, 2 lab) Prerequisites: None

This course includes the basic swimming strokes including the front crawl, back crawl, side stroke, breast stroke, and elementary backstroke. Safety, non-swimming rescues, swimming hygiene, water entries and survival swimming are also covered.
PHED131 Intermediate Swimming
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED130
This course improves the swimmer's skill in the basics swimming strokes including the front crawl, back crawl, breaststroke, sidestroke, and elementary backstroke. Other strokes covered include the butterfly, overarm sidestroke, trudgen crawl and inverted breaststroke. The course also covers diving, treading water, boating safety, turns, safety, non-swimming rescues and survival swimming.

PHED133 Lifeguard Training
(1 credit, 1 lecture, 1 lab) Prerequisites: Good physical health, at least 15 years of age and PHED131-level swimming skills
This course provides the necessary minimum skills training for a person to qualify as a lifeguard in situations where American Red Cross Lifeguard Training is required.

PHED134 Water Safety Instructors Certification
(1 credit, 1 lecture, 1 lab) Prerequisites: PHED131 and at least 17 years old
This course trains instructor candidates to teach American Red Cross water safety courses. Basic stroke evaluation, teaching techniques and water safety are covered.

PHED135 Skin and Scuba Diving
(2 credit, 1 lecture, 2 lab) Prerequisites: The ability to tread water for 5 minutes using only feet and arms, swimming 200 yards without fins, and swimming underwater 50 feet without fins or push-off
This course teaches skills needed to become a safe scuba diver. Upon successful completion, students are encouraged to take P.A.D.I. certification tests.

PHED136 Water Exercise
(1 credit, 0 lecture, 2 lab) Prerequisites: None
This course provides the knowledge and guidance to improve health and physical fitness through aquatics exercise. This low-impact program builds aerobic fitness, muscular endurance and strength, and flexibility in every muscle group. Swimming skills are not necessary.

PHED137 Lifeguard Instructor Certification
(1 credit, 1 lecture, 1 lab) Prerequisites: Lifeguard Training Certificate and at least 17 years old
This course trains instructor candidates to teach American Red Cross Basic Water Safety, Emergency Water Safety, Lifeguard Training and Lifeguard Training Review Courses.

PHED140 Advanced Open Water and Rescue Diving
(2 credit, 1 lecture, 2 lab) Prerequisites: At least 15 years of age and scuba diving and current CPR certification
This course provides theory and practical application in advanced and rescue diving.

PHED144 Fitness Walking
(1 credit, 1 lecture, 1 lab) Prerequisites: None
This course helps students improve their fitness levels through vigorous walking. Each student develops a personalized, healthy life-style plan which integrates exercise, diet and stress management.

PHED160 Fundamentals of Climbing
(1 credit, 0 lecture, 1 lab) Prerequisite: Liability waiver
Students receive training in climbing techniques, safety and equipment usage. Actual climbing is conducted on an indoor, artificial rock surface to develop the skills necessary to climb rock and ice.

PHED161 Climbing II
(1 credit, 0 lecture, 1 lab) Prerequisites: PHED160 and liability waiver
This course is a continuation of PHED160.

PHED210 Sports Officiating
(1 credit, 0 lecture, 2 lab) Prerequisites: None
This course presents the rules of a major sport, which is chosen by the participants of the class, and covers officiating techniques, relationship of players, officials and aspects of administration. Students may choose, upon completion of the class, to take the state examination to become a registered official in the chosen sport.
PHED231 Swimming Fitness
(1 credit, 0 lecture, 2 lab) Prerequisite: PHED131

This course provides the knowledge and guidance to improve health and physical fitness through exercise and training in a swimming program. This conditioning course covers the advantages and benefits of swimming: principles of training, evaluation and motivation; minor health annoyances and stroke mechanics.

PHED299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

PHYSICAL SCIENCES

PHYS101 Physical Science
(4 credit, 3 lecture, 2 lab) Prerequisite: Passing scores on the ASSET tests, Pre- or Corequisite: ENGL100 or DVED175

This course provides basic general education in physics and chemistry so students may better understand and evaluate the results of scientific and technological achievement and their impact upon society, enabling them to evaluate their own interest and potential in the physical sciences. This course is normally offered only in spring semesters.

PHYS111 Introduction to College Physics I
(3 credit, 2 lecture, 2 lab) Prerequisite: MATH100

This class for vocational students and those that need a beginning physics class examines classical mechanics and sound. This course is normally offered only in fall semesters.

PHYS112 Introduction to College Physics II
(3 credit, 2 lecture, 2 lab) Prerequisite: PHYS111

This course covers thermodynamics, electricity and magnetism, optics and modern physics. This course is normally offered only in spring semesters.

PHYS230 Introductory Physics I
(4 credit, 3 lecture, 2 lab) Prerequisite: Written departmental approval

This course is for students interested in the life sciences including biology, medical technology, pre-medicine and pre-dentistry and covers concepts of light, force and motion, and energy as they apply to biological mechanism and instrumentation.

PHYS231 Introductory Physics II
(4 credit, 3 lecture, 2 lab) Prerequisite: PHYS230

This continuation of PHYS230 covers fluids, elasticity of matter and membranes, sound, electromagnetism, quantum theory and radioactivity.

PHYS299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

POLITICAL SCIENCE

POLI110 Introduction to Social Science I
(4 credit, 4 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test, Pre- or Corequisite: ENGL100 or DVED175

This course introduces the interdisciplinary approach to the study of society and human behavior, emphasizing methodology, the development of skills necessary to study and research in the social sciences and the study of power, its use and distribution as an overall framework for examining the nature of society’s strengths and weaknesses. Materials focus primarily on economics and political science with special emphasis on the rights and responsibilities of citizenship and the form and functions of government at the national, state and local levels.
**Course Descriptions**

**POLI240 The American Political System**  
*(3 credit, 3 lecture, 0 lab)*  
Prerequisite: A passing score on the ASSET reading skills test

This course introduces politics and government at the federal level. Although in many ways it is a basic traditional survey sequence in American government, the course goes beyond the traditional examinations of government institutions (the executive, the legislature, and judiciary) to explore how the complex web of ideas, groups, personalities, and processes interact with those institutions to arrive at public policy. Within the larger context of the evolution of our present political system and the ongoing debate between liberals and conservatives, the course attempts to discover how our political culture, federal structure, the Constitution, public opinion, political socialization, campaigns and voting, pressure groups and lobbying, political parties, civil rights and liberties, public policy, foreign/defense policy and international affairs relate to power, influence, and decision-making in American politics. This course points out problem areas and inequities in development of our lives and relies on both historical and contemporary examples, stressing the present-day practice of politics to illustrate and explain the principles and processes outlined above.

**POLI246 International Relations**  
*(3 credit, 3 lecture, 0 lab)*  
Prerequisite: A passing score on the ASSET reading skills test

This course provides an introductory examination and analysis of international relations designed to prepare students to function as members of a global society. Economic, political and security issues are examined. The course includes analysis of foreign policy objectives, internal and external influences on foreign policy making and trends in the international system. Successful completion of POLI110 or POLI240 are recommended.

**PSYCHOLOGY**

**PSYC220 General Psychology**  
*(3 credit, 3 lecture, 0 lab)*  
Prerequisite: A passing score on the ASSET reading skills test

This course familiarizes beginning students with the concepts and methods used by psychologists to study human behavior. Subjects covered include experimental methods, neuropsychology, intelligence, language, learning, motivation, personality, mental disorder, therapy, and group behavior.

**PSYC221 Child Psychology**  
*(3 credit, 3 lecture, 0 lab)*  
Prerequisite: PSYC220

This course covers psychological theory and experimental findings as they apply to understanding and influencing children’s growth and development emphasizing basic concerns such as the effects of heredity and environment, the processes of maturation, intellectual growth and development, and childhood anxiety.

**PSYC225 Abnormal Psychology**  
*(3 credit, 3 lecture, 0 lab)*  
Prerequisite: PSYC220

This course covers the definition, description, measurement, diagnosis, causes, treatment, and prevention of abnormal behavior. Biological, psychosocial and sociocultural perspectives are reviewed.

**PSYC299 Directed Study**  
*(variable credit)*  
Prerequisite: Written departmental approval

See the Directed Studies description on page 123.
SOCIAL SCIENCES

SOCL111 Introduction to Social Science II
(4 credit, 4 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test. Pre- or Corequisite: ENGL100 or DVID175

This course is a continuation of POLI110 and completion of POLI110 is recommended before enrolling. Materials focus on history, anthropology, sociology and psychology as the study of society and human nature continues, emphasizing selective aspects of culture and contemporary social problems.

SOCL230 Sociology
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course familiarizes beginning students with the basic concepts and methods used by sociologists to study society. It culture, social structure, social class, institutions, demography, deviance, and social change emphasizing the sociological perspective of human behavior and modes of social organization.

SOCL235 Social Problems
(3 credit, 3 lecture, 0 lab) Prerequisite: A passing score on the ASSET reading skills test

This course focuses on the sociological approach to social problems including mental illness, crime, poverty, family and community disintegration, violence, ecology and current events.

SOCL299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

THEATER

THEA261 Drama as a Performing Art
(3 credit, 2 lecture, 2 lab) Prerequisites: None

This course provides experience in producing, acting, staging and directing plays.

THEA299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

WELDING TECHNOLOGY

WELD107 Welding Technique and Joint Preparation
(3 credit, 1 lecture, 3 lab) Prerequisites: None

This course gives students with no welding experience the opportunity to learn welding skills and proper techniques. Rod selection and out-of-position welding are covered. Projects from home are encouraged.

WELD108 Welding and Fabrication
(3 credit, 1 lecture, 3 lab) Prerequisites: None

This course emphasizes the five basic joint designs utilizing the oxyacetylene and arc process with emphasis on the 1, 2, 3, and 4 F positions.

WELD110 Automotive Welding
(2 credit, 1 lecture, 2 lab) Prerequisites: None

This course provides students an understanding of the basic techniques, machine operations and safety rules pertaining to soldering, welding, and brazing of lighter gauge materials.

WELD120 Welding and Fabrication II
(3 credit, 1 lecture, 3 lab) Prerequisites: None

This course allows welding students to continue developing skills on the 1, 2, 3 and 4 G weldments. Testing of weldments by means of destructive and nondestructive methods is used to insure students are properly developing welding skills.
WELD121 Advanced Welding
(3 credit, 1 lecture, 3 lab) Prerequisites: None

This course provides the training required for accomplishing qualification-type weldments in accordance with the A.W.S. welding code, using the S.M.A.W. process. M.I.G. procedures are also covered.

WELD122 Related Welding Skills
(3 credit, 1 lecture, 3 lab) Prerequisites: None

This course is for students needing a welding course to meet the requirements of other MCC technical programs. Students receive basic training in oxyacetylene, M.I.G. welding and oxyacetylene flame cutting.

WELD124 Agriculture and Construction Welding
(1 credit, .5 lecture, 1.5 lab) Prerequisites: None

This course is for those who make their own repairs on machinery. Topics include basic arc welding, basic gas welding, cast iron brazing, hard-surface application, flame cutting, and control of heat related stresses. Small, student-furnished projects are allowed but must be removed after each class.

WELD125 TIG Welding
(2 credit, .5 lecture, 1.75 lab) Prerequisites: None

This course is a comprehensive coverage of the Gas/Tungsten Arc Welding process, developed especially for and in consideration of the tool-and-die industry.

WELD140 SMAW Pipe Welding
(3 credit, 1 lecture, 3 lab) Prerequisites: WELD107 and WELD120

This course is an overview of proper practice and procedures used in pipe and pressure vessel weldments. Students employ the Shielded Metal Arc Welding Process to produce American Welding Society test plates in the 2G, 5G, and 6G positions.

WELD299 Directed Study
(variable credit) Prerequisite: Written departmental approval

See the Directed Studies description on page 123.

MODULAR & PRACTICAL APPLICATION COURSES

These courses exist in some disciplines. They may be carefully designed projects employing skills taught in that discipline or field experience in that area, or they might include both features. Examples are CRIM290 Criminal Justice Practicum in Criminal Justice and CMIS290 Field Experience in Computer Information Systems. In semester schedules, they are labeled with appropriate department prefixes.

Field Experience
(4 credit, 0 lecture, 0 lab or 5 credit, 0 lecture, 0 lab) Prerequisites: 30 credits, a 2.0 GPA and departmental approval according to department standards

Enrolled students hold jobs related in some way to their field of study. Performance on the job is monitored and guided by the employer and college personnel. Attendance at one-hour weekly seminars, four hours per credit per week of work experience, and submission of a final report are required.

Modular Course
(variable credit) Prerequisites: Same as parent course

These courses are one- or two-hour units of study which contain part of an existing course. Such courses respond to special, often one-time needs, and usually are not publicized by the college separate from the regular semester schedules.
Directed Studies
(variable credit) Prerequisite: Written departmental approval

These courses are usually for advanced students or those who have exhausted regular college offerings. The directed study cannot be used near the end of the semester to fill requirements, but must be planned in advance. Careful attention must be given to the description of the work proposed because there is no other course outline on file to document the experience. Students interested in directed study must contact an instructor who will sponsor the proposed activities. The teacher completes the written plan on proper forms and seeks approval from the instructional administrator before work begins. Students must enroll in the appropriately labeled section of Directed Studies 299, e.g., BUSN299, HIST299, TDSN299.
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Campbell, Robert; B.S. ........................................................... Business Administration
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LaBeau, Marc; M.S. ...................................................................... Language Arts/Humanities
Lee, Harold; B.A. ........................................................................ Nursing
Lincoln, Karen; R.N., M.S.N. ......................................................... Mathematics
Long, Daniel; M.A. ....................................................................... Counseling
Lucka, James; M.A. ...................................................................... Nursing
Miller, Larissa; R.N., B.S.N. ........................................................ Social Sciences
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Nelson, Dennis; M.A. ................................................................. Social Sciences
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Walden, Joanne; M.A., Ed.S. ........................................................ Performing Arts
Witter, Marilyn; R.N., M.A. ........................................................ Computer Information Systems

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GLOSSARY OF TERMS

ACADEMIC FREEDOM refers to the right of the student to learn and the right of the teacher to employ teaching methods that are effective in pursuing course objectives.

ACCREDITATION is recognition by an approving organization such as the North Central Association of Colleges and Schools which accredits Montcalm Community College.

ADMISSION is the acceptance of a student by a college or university entitling him or her to take classes and participate in campus activities.

ADVISOR is the person responsible for advising students regarding financial aid, class scheduling or career choice.

APPRENTICE is a person following a planned program of occupational skills that is provided by an employer and related instructional training that is provided through a community college or high school.

ASSOCIATE DEGREE is a planned degree program of approximately 60 credit hours conferred by an accredited college.

AUDIT generally means students pay regular tuition and fees for a class, but need not complete assignments or take examinations. Arrangements to audit an MCC course must be made prior to registration. The option to switch to audit status is not available after the end of the drop/add period.

BACHELOR'S DEGREE is a degree, from an accredited college or university, that is awarded upon successful completion of a prescribed major course of study of approximately 124 credit hours.

CAMPUS is the entire physical content of a college or university including all buildings and grounds.

CATALOG is the college or university publication which lists general information, college programs and course descriptions.

COMMUNITY COLLEGE is a post-secondary institution authorized to award associate degrees and certificates and offer a variety of non-degree learning experiences. Programs include liberal arts, occupational studies, adult education, business and industry training and personal enrichment opportunities.

COUNSELOR is a professional who helps students with academic, career and life planning.

CONTACT HOURS are the total hours of lecture and laboratory instruction for each class.

COREQUISITE is a required course which, if not taken ahead of time, must be taken during the same semester as another class.

CREDIT BY EXAM is available for some courses. Students must sign up for and pay full tuition for the course and then take the exam. A grade of S is issued if the exam is passed satisfactorily.

CREDIT HOURS are assigned to each class, usually reflecting the number of lecture hours per week. Additional laboratory hours are required in some courses.

CURRICULUM is the collective term for various courses of study offered.

DROP/ADD is the time after classes begin when students may add or delete classes from their schedules without penalty.

ELECTIVE is a class not specifically required in a course of study.

ENROLL is to sign-up for classes for inclusion on the official class list or roster.

ESSAY TEST is an examination where answers to questions are written in paragraph form.

EXTRACURRICULAR ACTIVITIES are campus events, other than classes, in which students participate.

FEES are nonrefundable charges in addition to tuition.
FINAL EXAM, the last test given in a class, may include all or part of the course work covered.

FINANCIAL AID is money received from various sources to help students with college costs.

FULL-TIME STUDENTS take 12 or more credit hours of study.

GRADE POINT AVERAGE (GPA) is the cumulative numerical value of grades earned by a student determined by dividing total points by the number of credit hours.

INCOMPLETE (I) GRADES are awarded when students cannot complete required course work by the close of a semester for reasons beyond their control. The grade indicates the instructor's belief that the student will receive a passing grade when the requirements have been fulfilled.

INTRAMURAL is a term used in connection with athletic teams which usually consist of students from a single institution who compete against each other.

LABORATORIES are science, computer, secretarial, art or other hands-on experiences related to classroom instruction.

LABORATORY ASSISTANT is a college employee who provides assistance to students in a lab setting.

LABORATORY SUPERVISOR is a staff person with teaching qualifications who supervises a lab and provides assistance similar to that available from an instructor.

LIBERAL ARTS are academic disciplines such as language, history or humanities that develop general intellectual ability and provide information of general cultural concern.

LIBRARY includes traditional library services, automated information services and access to materials from off-campus sources.

MATRICULATION is the act of enrolling at a college or university.

OFFICE HOURS are scheduled times instructors are in their offices to meet with students.

OPEN LABORATORY is a classroom setting where self-teaching materials are used.

ORIENTATION is a scheduled time for students to become familiar with places, processes and expectations.

PART-TIME STUDENTS carry fewer than 12 credit hours.

PREREQUISITE is a course required to have been successfully completed prior to enrollment in another course.

REGISTRAR is the administrator responsible for student records, transcripts and registration procedures.

REGISTRATION is the process of enrolling in classes.

SEMESTERS are the time periods in which classes run. At MCC, 16-week semesters begin in August and January. A shorter summer semester begins in June.

SEMESTER HOUR is the measurement of time spent in class.

SENIOR CITIZEN is a person who is 60 years of age or older.

SEQUENTIAL CLASSES are courses offered consecutively with each serving as the prerequisite for the next.

SKILLS DEVELOPMENT LAB is where students develop basic reading, math and language-usage skills.

STUDENT RIGHTS include procedures for appealing grades and offering input on college or university policy-making.

SUBSTITUTION of a course required for a degree or certificate must be done in writing, signed by the appropriate instructor and instructional administrator. Forms are available in the Enrollment Services Office.
TECHNICAL STUDIES are occupationally oriented programs of learning which provide job skills for students who wish to enter the career of their choice upon the completion of their training.

TEXTBOOK is a written manual used for reference or study in a class.

TRANSCRIPT is the official record of grades from an educational institution that shows a cumulative record of course work.

TRANSFER is the process by which a student enters a college or university after having been enrolled at another institution.

TUITION is the amount of money charged for classes.

TUTOR is a person competent in a specific subject who helps students with that subject. Students either needing a tutor or wishing to be a tutor should contact the Special Populations Counselor.

WAIVING a class is sometimes possible through a competency exam. To waive a required course, a student must pass the exam and pay $5 per credit hour. Credit hours must be made up by taking other courses.

WITHDRAWAL is the act of voluntarily dropping out of a specific class within a prescribed time. Students must initiate the request to withdraw, and if approval is granted, the instructor will assign a WP, withdrawal passing, or a WF, withdrawal failing, to the transcript.
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1999 Spring Semester
Registration begins .................. November 23
Classes begin .......................... January 15
Spring Break .......................... April 5-11
College closed ......................... April 2-4
Classes end ........................... May 15

1999 Summer Semester
Registration begins .................. April 26
Classes begin .......................... June 14
Classes end ........................... August 6

1999 Fall Semester
Registration begins .................. April 26
Classes begin .......................... August 25
Classes end ........................... December 20

2000 Spring Semester
Registration begins ................. November 22 (Tentative)
Classes begin ........................ January 14
Classes end ........................... May 13

2000 Summer Semester
Registration begins ............... April 24 (Tentative)
Classes begin ........................ June 12
Classes end ........................... August 4

2000 Fall Semester
Registration begins ............... April 24 (Tentative)
Classes begin ........................ August 23
Classes end ........................... December 18

2001 Spring Semester
Registration begins ........... November 20 (Tentative)
Classes begin ........................ January 12
Classes end ........................... May 12

For more information, call 517/328-2111.

The material in this catalog applies to the 1999-2001 academic years and reflects information available at publication in January 1999. Montcalm Community College reserves the right to revise information contained in this publication and make reasonable changes in requirements to improve or upgrade academic and non-academic programs. These changes will not affect credits already earned by current students.