Montcalm Community College

Creating Brighter Futures

2009-2011 catalog

General Information

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Cover photo: MCC's Beatrice E. Doser Building

Welcome

Dr. Donald C. Burns
PRESIDENT

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.

As you 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 begin your next level of 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 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 is accredited by the Higher Learning Commission, a member of the North Central Association (30 N. LaSalle St., Suite 2400, Chicago, Ill. 60602, 312-263-0456) and an AQIP participant.

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 improves 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.

- Providing continuing education services for those seeking professional development and credentialing.
- Facilitating community development in such areas as avocation, recreation, health and fitness.
- Developing awareness of global interdependence and the value of human diversity and commonality.
- Developing the intellectual and communication skills necessary to contribute productively to the world community.

PREPARING PEOPLE FOR SUCCESSFUL TRANSFER

- 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

- Providing occupational programs and courses based on current standards and workplace competencies for those seeking career preparation.
- Providing consultation and human resource development for area employers and employees.

The Values

Montcalm Community College subscribes to the following institutional values:

- We provide a caring environment for our students, staff and community.
- We expect competence and the pursuit of excellence from our students and staff.
- 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 is 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 permits students to explore areas of special interest. It is expected that students who complete two years of academic study have an understanding of how knowledge is gained in the various academic disciplines and possess the skills to become a lifelong learner.

2. For applied science students, a high degree of occupational competence at the skilled or semiprofessional level should be achieved. For students who seek an associate degree as well as occupational competence, successful completion of the general education core is also 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 are 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 process 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

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 COMPASS (computer-based) assessments assist advisors in determining appropriate course placement, including placement in developmen-

tal education courses. Many courses require minimum performance levels on the COMPASS assessments as a prerequisite to enrollment.

The COMPASS assessment must be taken prior to enrolling in specific courses. Assessment schedules are available in Student Services and online at www.montcalm.edu. The following individuals may not be required to participate in the COMPASS assessment: 1) those who have previously completed the 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.

LEARNING OUTCOMES
Montcalm Community College is committed to providing a learning community that is effective and meets the needs of learners. As one means of meeting that commitment, a continuous quality improvement process is used that involves measuring student learning and using the results to improve teaching and learning. Learning outcomes have been identified for each course and degree program offered by the college. To measure student learning, faculty use a variety of assessment methods during a course offering. Degree program and general education outcomes are assessed by a variety of methods including transfer studies, graduate follow-up studies, placement studies, licensure/certification results, portfolios, capstone courses and graduation studies.

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 associate degrees offered at the college. All associate-degree graduates are expected to demonstrate increased:

- proficiency in written and oral communications;
- understanding of the natural world and the scientific method;
- understanding of the American political system;
- understanding of global interdependence and the interrelation of communities, states, nations and peoples;
- knowledge of issues related to cultural diversity;
- understanding of and proficiency in basic 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 thinking and problem solving; and
- ability to make ethical considerations in political, social, professional and personal endeavors.

Developmental Education

Some student's COMPASS assessment results indicate placement into a developmental education course. These provide instruction in math, reading and writing. Instruction in study skills is also 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.

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.

TRANSFER
The transfer must be to an accredited college or university within one year of graduation. Such classes must be listed as transferable on the transfer institution's official curriculum guide sheets posted on that institution's Web site.

EMPLOYMENT
The employment must be full time and Counseling and Career Services must certify the job 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 graduation 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.

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

The skill retraining must be completed in one academic year.

The employer, the graduate and a college advisor, 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 enrollment 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

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 that 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.

New Student Enrollment Process

A PROSPECTIVE STUDENT SHOULD:

- apply for admission;
- apply for financial aid (if desired);
- have official high school or GED transcripts and transcripts from other colleges or universities attended sent to MCC;
- complete assessment testing, which is required before enrolling in many entry-level courses;
- register for classes; and
- arrange payment for classes.

Admission Application

Application for Admission forms are available from Student Services, located in the Administration/Library Building on the college's Sidney campus, and all MCC off-campus sites as well as area high school counseling offices and the MCC Web site at www.montcalm.edu. There is no application fee.

Prospective students should submit a completed Application for Admission form to MCC's Student Services. 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 after submitting an MCC Application for Admission. Evaluation of post-secondary transcripts may take up to six weeks after the transcript is received.

Assessment

Academic assessment using COMPASS or ACT testing is required for all students pursuing a program of study at MCC or who wish to enroll in a course with a test score listed as a prerequisite. Test scores must be on file in Student Services. New students must complete and submit an Application for Admission prior to testing. Students exempt from testing are those who have previously completed the COMPASS test or attained the required ACT scores (18 or above in individual test modules), have earned a bachelor's degree, are age 60 or older, audit classes or obtain a waiver from the instructor. Only COMPASS test scores are accepted as placement scores for MATH prefix courses; ACT math scores cannot be used.

Your readiness to take an on-line or hybrid course can be assessed using the READI test. Go to www.montcalm.edu/readi for more information and to take READI.

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 enrolling at MCC before graduating from high school may enroll only on a non-degree basis.

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. Students must meet all college admission and registration requirements.

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 or MCC's Web site at www.montcalm.edu. A student may not attend as a guest for two consecutive semesters.

International Students

International students must complete an International Student Application for Admission as well as an MCC Application for Admission; both are available on the MCC website www.montcalm.edu. 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 (TOEFL); and a letter indicating their educational plans. Students must have established local housing and transportation arrangements.

International students who wish to have international post-secondary credit transferred to MCC must submit a course-by-course credit evaluation available through either World Educational Services (WES) or the American Association of Collegiate Registrars and Admissions Officers (AACRAO).

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 as non-degree status. 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. These applicants will not be eligible for federal or state financial aid through MCC.

New Student Orientation

Orientation is a key element of student success. Students learn strategies that assist them in acclimating to post-secondary education and learn about resources available to help them succeed. Because MCC is committed to academic success, all new students are required to complete a new student orientation session before beginning classes at MCC. Students who have successfully completed 15 semester or 21 term hours or more at another college or university, are taking only courses with ARTS or PHED prefix or are taking classes for audit only, may be exempt from orientation, but are encouraged to participate. In-person orientation is available prior to each semester on MCC's Sidney campus and on MCC's Web site at www.montcalm.edu.

Academic Advisement

Educational counselors are available to assist students with academic planning and defining their educational goals. Students may receive assistance with course recommendations to meet education and program requirements, dropping and adding courses, changing program of study, petitioning procedures and issues related to transfer. Academic advising is a collaborative effort between counselors and the students. Students are expected to read all pertinent MCC student information and participate in the advising process. Students are encouraged to meet with a counselor prior to registering, but are required to do so before their second enrollment at MCC.

Transfer Students

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 in the MCC Counseling and Career Services Office as well as contact the transfer advisor at the receiving institution as soon as possible after enrolling at MCC. Each institution may vary in regard to the minimum grade required for a course to transfer and in the number of credits that may transfer.

Curricular guides for many degree programs at Michigan colleges and universities are available via the home college or university Web site, admissions or advising office or in MCC's Counseling and Career Services Office. It is recommended that students follow the transfer curriculum guide designed specifically for the major and institution in which they plan to transfer, if available.

Students who are uncertain about the college or university to which they intend to transfer are encouraged to initially follow the guidelines for earning the MACRAO endorsement or to follow the degree requirements for earning an associate degree in Arts, Science, Liberal Studies or General Studies. Students who transfer credit to MCC are encouraged to meet with a counselor to plan any subsequent transfer. Note: Not all Michigan colleges and universities participate in the MACRAO Agreement.

Students planning to transfer to another community college or an out-of-state institution should contact an admissions representative 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. Criteria for admission may include one or all of the following: the community college grade point average (GPA), high school GPA, and SAT/ACT scores. Presentation of a portfolio, an audition or interview may be a factor for acceptance into certain degree programs. Additional admission or program requirements may exist for specific programs, degrees or majors.

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 of 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 Counseling and Career Services Office for information on availability and application deadlines.

Before transferring, students are encouraged to visit the institution to which they plan to transfer. Campus tours are often available if arranged ahead of the visit. Students are encouraged to meet with an admissions representative, faculty or academic counselor at the transfer institution well in advance of their planned transfer.

MACRAO 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. Not all Michigan colleges and universities participate in this agreement and some institutions have provisos to acceptance of the MACRAO endorsement.

Students completing the following 30-credit-hour program must request their transcript show "MACRAO Agreement Satisfied." Students who feel they have met the requirements for this agreement should fill out a "MACRAO Agreement Application", available in Enrollment Services, upon completion.

a. **English Composition**: 6 semester hours
ENGL100, ENGL101

b. **Humanities**: 8 semester hours
Courses must be taken from more than one subject area (have different prefixes) except if taking HUMN200 and HUMN201.
ARTS120, ARTS225, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL230, ENGL240, ENGL265, ENGL270, ENGL280, ENGL290, FREN120, FREN121, GERM101, GERM102, HUMN100, HUMN200, HUMN201, HUMN270, HUMN271, MUSI101, MUSI110, PHIL220, PHIL221, PHIL222, SPAN130 or SPAN131

c. **Math & Sciences**: 8 semester hours
Courses must include at least one science course with a laboratory. Courses taken must be in more than one subject area (have different prefixes).
BIOL100, BIOL104, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, MATH102, MATH104, MATH120, MATH159, MATH190, MATH250, MATH251, MATH252, MATH290, PHYS101, PHYS230 or PHYS231

d. **Social Science**: 8 semester hours
Courses taken must be in more than one subject area (have different prefixes).
ANTH260,ANTH265,ECON215,ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI110, POLI240, POLI246, PSYC120, PSYC221, PSYC223, PSYC225, SOCI111, SOCI230, SOCI235, SOCI271 or WMST100

Students also completing the Liberal Studies certificate or an associate degree should contact an advisor to determine which courses meet specific degree requirements.

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 for transfer credits. Only official transcripts will be evaluated. Official transcripts are those sent directly to MCC from the institution where the credit 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. Evaluation of post-secondary transcripts may take up to six weeks after the transcript is received. Students planning to transfer to MCC should have transcripts from other institutions sent to the college well in advance of the first semester of attendance. Only credits earned from a regionally accredited institution of higher learning are accepted. Equivalent courses may be accepted in transfer for corresponding MCC courses. If a course has no equivalent at MCC, it may be used as an elective. Credits, not grades, are accepted for courses in which a grade of C or better was earned. MCC is based on a semester system; two-thirds credit is granted for courses earned at an institution on terms or quarters. It is the student's responsibility to follow up on the credit evaluation. Students receive a copy of the evaluation and a copy is placed in the student's file with the transcript. Students may request a review of the evaluation. Questions regarding the evaluation should be directed to the Director of Enrollment Services.

Credit for Prior Learning

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 a course competency exam is offered may opt for credit or waiver by examination. Credits granted through examination may or may not transfer beyond MCC at the discretion of the receiving institution.

a. *Credit by examination:* Students who take a competency exam prior to enrollment in or starting the course will be charged a $5 per-credit-hour examination fee. Students successfully completing a course competency exam will receive an S grade and course credit upon payment of full tuition and fees. Financial aid does not pay for credits earned by exam.

b. *Waiver by examination:* A $5-per-credit-hour examination fee will be charged. Upon successful completion of the exam, the requirement for taking that course may be waived. 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 for a course required in a certificate or degree, the student will be required to take the equivalent number of credit hours in other course work not otherwise required in the program.

CLEP AND DANTES

MCC students who have taken part in the College Level Examination Program (CLEP) and/or DANTES Subject Standardized test (DSST) and achieved the ACE recommended score 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 and/or DANTES 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 (AP)

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 submit an official test score report 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 for course credit granted. 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 MCC. Written agreements to grant college credit in specific programs for high school courses have been reached with several school districts.

- Student must complete the high school/career center courses with a "B" or better final grade and a "competent" rating.

- Student must complete a MCC Articulation Application Request Form with their secondary school counselor and send it to MCC's Enrollment Services with their application for admission along with an official high school transcript.

- Student must enroll at Montcalm Community College within 26 months after high school graduation or the articulated credit does not apply.

- Articulated credits will be added to the student's MCC transcript upon request to Enrollment Services. No grade will be assigned, no tuition charged, and no effect on grade point average. Credits will be used to satisfy program/certificate/degree requirements.

- MCC credit for articulated courses is limited by specific program agreements.

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 upon formal request and submission of a DD214 to the MCC Director of Enrollment Services.

b. *Other Training Programs:* Students who have successfully completed military coursework may receive transfer credit upon application according to the appropriate ACE guide. To earn credit for military training or course work, students must forward official transcripts to the Enrollment Services Office. The transcripts will be evaluated for credit by the appropriate instructional administrator. A $5 fee is charged for each credit granted.

Tuition & Fees

The rates below are current at publication and are subject to change. Refer to www.montcalm.edu for current tuition and fees.

MCC District Residents

Tuition..... $74 per credit hour

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..... $128 per credit hour

Out-Of-State Residents

Tuition..... $171 per credit hour

Other Fees

Activities Fee..... $1.50/credit hr. to a maximum of $18/semester
Contact (Lab) Fee*..... Same as per-credit-hour tuition
Materials Fee..... See the class listings
Technology Fee..... $5 per contact hour

**Some courses have lab or contact hours for which there is a Contact (Lab) Fee. In the semester course schedules these are shown in parentheses immediately following the credit hours.*

SENIOR SCHOLARSHIPS

Adults age 60 or older who live in the MCC district may take MCC credit courses tuition free (limited to tuition and excess contact hour fees). Seniors are not required to pay activities fees and seniors using this scholarship will not receive a student I.D. card.

Refund Policy

1. Fees are not refundable.

2. Tuition is 100 percent refundable during the enrollment and drop/add period. No refunds of tuition will be made for withdrawals after the end of the enrollment period.

Federal Refund Policy

FOR STUDENTS RECEIVING TITLE IV AID

Students who receive any form of Federal Title IV Student Financial Aid and withdraw from ALL classes before completing 60 percent of the semester may be required to repay a prorated portion of the federal aid they received.

Payment of Tuition and Fees

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

2. The college accepts Visa, Discover and MasterCard.

3. Students who receive financial aid through the college must present a form from the Financial Aid Office to the registration staff 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 may be available.

CREDIT TERMS

Payment Plan Information

This convenient, interest-free payment plan is made available to MCC students through Nelnet Business Solutions. The payment plan can be used to pay tuition and fees. By enrolling in the plan early, students can make payments for up to 4 months for the fall semester, up to 5 months for the spring semester and up to 3 months for summer semester. Students wishing to enroll in the payment plan must be registered for classes and enroll in the plan by the semester payment due date.

Payment Methods

- Automatic bank payments (ACH) using a checking or savings account.
- Credit card/Debit card (MasterCard, Discover or American Express).
- Nelnet **does not** accept VISA cards.

Cost to Participate

- $25 enrollment fee per semester.
- $25 returned payment fee if a payment is returned for non-sufficient funds.
- If a credit/debit card is used, a convenience fee, in addition to the enrollment fee will be assessed.

To set up a payment plan choose the "SET UP A PAYMENT PLAN" link on the student accounts page of My.Montcalm.edu.

Financial Aid

Application for Financial Aid

MCC attempts to assist students with their expenses by constructing a package of grants, loans, scholarships and employment 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 Annual Information Form (available on the MCC Web site).

Information about all types of financial aid is available in the Financial Aid Office or by visiting the MCC Web site at www.montcalm.edu. Entering freshmen are encouraged to submit the FAFSA as early as possible in their senior year of high school. For maximum award consideration, the FAFSA should be submitted by first-time freshmen by March 1 and returning students by March 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
- Annual Information Form
- Proof of high school graduation or equivalent
- 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

Grant, scholarship and loan money is 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 before loans, grants or scholarships are disbursed. However, loans are disbursed if the student has signatures showing attendance in at least six credit hours. If a student is enrolled in a class that has a late start date, loan recipients must be in at least six credits before loans are disbursed. Grants are not disbursed until after the late start class has begun and all other classes have valid signatures from instructors.

Grant, scholarship and loan refunds are issued by check if there is a credit balance on the student's account and the Attendance Verification Form has been properly completed and returned to the Financial Aid Office.

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

MCC 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 using the rates in effect at the time of publication. These expenses are used by the Financial Aid Office to calculate a student's financial need for the 2008-09 academic year.

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

Tuition and fees (based on in district, full time)	$2,072
Room and board	$4,004
Books	$901
Travel	$1,383
Technology Fee	$140
Personal	$890
Activity Fee	$42
TOTAL	$9,432

INDEPENDENT STUDENTS

Tuition and fees (based on in district, full time)	$2,072
Room and board	$10,336
Books	$901
Travel	$1,383
Technology Fee	$140
Personal	$2,304
Activity Fee	$42
TOTAL	$17,178

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 U.S. 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 and/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 grants up to $4,241 to students meeting specified need requirements. 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.

Academic Competitiveness Grant: This program offers students $750 for the first year of undergraduate study and up to $1,300 for the second year. Student must be PELL eligible, full-time, and completed a rigorous high school program. Second year students must maintain a cumulative grade point average of at least 3.0.

Federal College Work Study (CWS): This program offers work, on or off campus, to students with financial need 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 that is not based on need. First-year students may borrow up to $3,500 per academic year in subsidized loans. Second-year students may borrow up to $4,500 per academic year in subsidized loans. The maximum cumulative 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 percent. 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 and making satisfactory academic progress at the time the refund is disbursed. An Attendance Verification Form must be submitted to the Financial Aid Office before payment is made. If verification is not provided, the disbursement will not be made and the loan will be cancelled.

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 $1,300 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 younger than age 20 who graduate from high school or obtain a GED and who are from lower-income families are eligible.

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 Inter-Tribal Council of Michigan to be not less than one-fourth quantum blood Indian.

Michigan Nursing Scholarship: This program provides scholarship awards up to $4,000 per academic year for full-time students. Each college will award the scholarship based on specific criteria. Students receiving a full-time scholarship award have to agree to work as a direct patient care nurse in an eligible Michigan facility, or employment as a teacher of nursing at an eligible postsecondary institution, one year for each year of assistance. Failure to fulfill the work commitment will result in the scholarship becoming a loan that must be repaid.

Michigan Promise Scholarship: This program provides up to $4,000 to high school graduates for successfully completing two years of postsecondary education beginning with the high school graduating class of 2007. To be eligible to receive funds students must take the entire MME and show valid test results for all MME components.

MCC FOUNDATION
SCHOLARSHIP PROGRAMS

Annually, scholarships are awarded to students pursuing education at MCC. Applications are accepted in the spring of each year and awarded beginning in the fall semester. Applications and information may be obtained on the Foundation Web site at www.montcalm.edu/foundation or by contacting the Financial Aid Office.

- Beth Anderson Memorial Current or Returning Student Scholarship
- Beth Anderson Memorial Home School Scholarship
- Beth Anderson Memorial International Student Scholarship
- Beth Anderson Memorial New Student Scholarship
- Beth Anderson Memorial Short-term Training Scholarship
- Festival Scholarship
- Doris M. Arntz Scholarship
- Stanley & Blanche Ash Scholarship
- Louise D. Buescher Scholarship
- William & Harriette Cook Scholarship
- Judy K. DeVolder Nutt Scholarship
- Dr. Gordon DeVries/Dr. Thomas Deurloo Memorial Scholarship
- Manfred Doser Memorial Scholarship
- Mildred Farmer-Angwin Scholarship
- Harold & Ruth Force Family Scholarship
- Nancy Fox Scholarship
- Mr. & Mrs. John Hathaway Scholarship

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- Erin Kae Kitchenmaster Scholarship
- Kenneth J. & Gail E. Lehman Scholarship
- MCC Board of Trustees Scholarship
- MCC Employee Endowed Scholarship
- MCC-ESPA Scholarship
- MCC Presidential Scholarship
- Abby & Todd Molitor Scholarship
- Ardene (Diz) Oswald Memorial Scholarship
- Edward Reddig Scholarship
- Grace M. Sagendorf Scholarship
- Herbert N. Stoutenburg Scholarship
- Camille Widdifield Memorial Scholarship

OTHER PROGRAMS

The Perkins Attendance Cost Assistance Program may provide direct cost assistance and support services to single parents, displaced homemakers or single, pregnant women, non-traditional job trainees, economically or academically disadvantaged students or individuals with a disability or limited English proficiency who are enrolled in an eligible occupational program. This program is federally funded through the Carl D. Perkins Vocational and Technical Education Act and is subject to provisions of the Act.

Contact the Financial Aid Office for more information.

The Department of Human Services provides 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, the Financial Aid Office or Counseling and Career Services for information.

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

Federal and state governments mandate the establishment and enforcement of a satisfactory academic progress policy for institutions disbursing financial aid funds to students. Students are in good standing for financial aid if they meet specific guidelines and are accepted for continued enrollment under the academic policy. Students receiving financial aid at MCC must maintain satisfactory academic progress in accordance with the following guidelines:

- 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 for 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 percent 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 percent of 60 credits, or a total of 90 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:

Credit hours attempted	**Student must successfully complete**
1-15	50 percent
16 and above	70 percent

Cumulative semester hours	**Grade point average**
12 or more	2.00

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

The quickest way to process the application is to complete the Veteran's Online Application available at the VONAPP website. After the application is completed online a copy of the current MCC student class schedule must be submitted to the MCC VA Office and it will be certified on the VA Once Web site by the MCC Certifying Official.

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.

Unsatisfactory progress can stop VA benefits. The MCC academic dismissal policy is on page 23 of this catalog. Students receiving VA benefits that 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.

Student Services

The Student Services area is located in the upper level of the Administration/Library Building on MCC's Sidney campus.

Registration

Registration includes academic advisement, enrolling in courses and paying tuition and fees. Registration dates, times and options are outlined in each semester schedule booklet as well as the MCC Web site at www.montcalm.edu.

Counseling

Licensed professional counselors are available to assist students. Course advisement, testing and interpretation, special needs, tutoring, career exploration and career decision-making, personal counseling referrals and other counseling services are available. Appointments may be made by calling Counseling and Career Services Office at (989) 328-1231 or (989) 328-1266.

General Information

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

ACT Testing

The American College Test (ACT) information can be obtained by calling (989) 328-1264 or online at www.act.org.

GED Testing

Information about scheduling the General Educational Development (GED) test is available by calling Counseling and Career Services at (989) 328-1266.

Records

Grade reports are available 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 are not released for students who have outstanding financial obligations to MCC or have overdue library materials. Grade reports and unofficial transcripts can be viewed and printed through a secure link on the MCC Web site. It is the student's responsibility to check his/her grades at the end of each semester or academic session.

The archived transcript shall be considered the permanent academic record.

A signed, written request to Enrollment Services 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 or student ID number. The first three transcripts are issued free of charge. The fourth and subsequent copies are $1 each.

Unofficial copies of transcripts may be printed through MCC's student portal at My.Montcalm.edu or sent to students upon request. Transcripts from other institutions cannot be released or copied.

No transcripts will be issued for students who have outstanding financial obligations to MCC or who have defaulted on student loans.

Career Resources

The Vault Career Library is available online and contains career guides, career profiles, an internship database, information about international careers, industry overviews and profiles, diversity profiles, advice about student loans, and books about the job search process including sample resumes and interviewing skills. For information about how to access the Vault Online Career Library or to learn about other career resources available in the Counseling and Career Services Office, contact the Counseling and Career Services Office or call (989) 328-1231.

Career Planning Services

Personal career counseling is available to students who are undecided about which college program or career to pursue. Career interest testing and interpretation is available to assist with educational planning and decision making. Contact Counseling and Career Services at (989) 328-1231 for additional information. A credit course exploring career development is also available to students who are undecided (DVED110 Career Development).

Employment Services

Information regarding full-time and part-time employment opportunities is available to current students, former students, and alumni through

CollegeMatrix. CollegeMatrix is available through the MCC Web site and assists in the management of your job search activities including posting resumes, applying for jobs online and the opportunity to search a database for current open positions. For information about registering to use CollegeMatrix, contact the Counseling and Career Services Office at CCS@montcalm.edu or call (989) 328-1232.

Tutoring Services

MCC offers free tutoring assistance to students experiencing academic difficulty. Tutoring is offered on a drop-in basis for MCC students. Assigned times and designated locations are provided for students to walk in and receive academic assistance. Students with documented disabilities can receive one-on-one tutoring. To receive free tutoring assistance students must complete an application. The application is available on the My.Montcalm Web Site at My.Montcalm.edu click on Student Resources and scroll down to Tutorial Services, or visit the Learning Support Center in room D318 in the Beatrice E. Doser Building on the college's Sidney campus.

Disability Services

To overcome barriers in education, Montcalm Community College is committed to providing academic assistance to students with documented disabilities.

EDUCATIONAL ASSISTANCE SERVICES:

- Career counseling.
- Assistance with admission, registration and graduation.
- Academic advising.
- Determine appropriate accommodations based on professional diagnostic information and student input.

STUDENTS WITH DOCUMENTED DISABILITIES REQUIREMENTS:

- Provide a copy of the professional diagnosis.
- Understand their disability and its affect.
- Realize behavior and performance do count.
- Know how to self advocate.
- Know how to study independently.
- Learn to use technology.

ELIGIBILITY REQUIREMENTS FOR STUDENTS REQUESTING ACCOMMODATIONS:

- Students are required to provide written documentation of their disability.
- Disability documentation must be signed and dated by a qualified professional.

In order to receive assistance prior to each semester students must meet with the Educational Assistance Counselor to determine the appropriate accommodations.

Disability accommodations may include:

- Sign language interpreter
- Notetaker
- Textbooks on tape/CD
- Extended time on test
- Tutoring
- Test Accommodations

The Educational Assistance Office is located in the Learning Support Center in room D318 in the Beatrice E. Doser Building. Please stop in or call (989) 328-1264 to schedule an appointment.

Student Activities

Extracurricular organizations at Montcalm Community College foster and facilitate student interests and skills, community activities, social interaction, and quality of life. Involvement contributes to the emotional and physical well-being of students and community, and to their intellectual, cultural and social development. The programs are funded by a portion of student activity fees.

Clubs & Organizations

- After Hours Club
- Art Club
- Chess Club
- Drama Club
- Film Club
- G.H.O.S.T (Ghost Hunters of Sidney Township) Club
- Math Club
- Music Club
- Native American Club
- Nursing Club
- Phi Theta Kappa Honor Society
- Alpha Tau Alpha Chapter
- Ping Pong Club
- Science Club
- Student Newspaper
- Volleyball Club
- Writer's Guild

For the most current information about clubs and organizations and for guidelines to start a new club, visit the "Student Activities" tab at My.Montcalm.edu. Contact MCC Admissions for more information at (989) 328-1276 or admissions@montcalm.edu.

Activities

Examples of college-sponsored activities include club sports, excursions, travelogues, support groups, fund-raisers, lectures, intramurals, American Red Cross blood drives, self-help seminars, leadership development, and musical and dramatic performance groups.

Phi Theta Kappa Honor Society

Phi Theta Kappa is an international honor society for junior and community college students, with more than 1,200 chapters worldwide. 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. E-mail admissions@montcalm.edu or call (989) 328-1276 for more information.

ID Cards

Student ID cards are available fall and spring semesters at the recreation desk in the Activities Building after the drop/add period. 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.

College Procedures

My.Montcalm
MCC e-mail and My.Montcalm web portal are provided to MCC students upon admission to facilitate communication between Montcalm Community College and the student. MCC e-mail and My Montcalm web portal accounts are the primary means of communication with students. Students are responsible for all information in their MCC e-mail and My.Montcalm accounts. Students will use their My.Montcalm web portal to conduct business over a secure connection.

Semester System
Montcalm 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 that runs from June to early August. Some courses may begin and/or end outside the designated dates for a semester or session.

Classification System
A *freshman* is a student who has completed fewer 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 is one who enrolls for 12 or more credit hours per semester. Enrollment in 9 to 11 credit hours is considered three-quarter time and enrollment in 6 to 8 credit hours is half-time. When enrolling in more than 18 credit hours in a semester it is recommended that students meet with an academic advisor. Full time status for summer session is 6 or more credit hours (more than 9 credits should have permission from an advisor). This may vary for financial aid purposes.

Program Planning
In planning course work, students should use counseling services, faculty, online resources including the catalog and semester class schedules. Some courses are offered every semester while others are on an irregular basis.

Program of Study Selection
Selection of a program of study takes place prior to registration. The MCC Catalog or individual program guides (available in Student Services or on the MCC Web site) list specific course requirements necessary for program completion. Exceptions to any program requirements will be made only by the dean of the appropriate instructional division of the college and must be authorized in writing on a course waiver/substitution form.

Catalog of Record
Each student is responsible for knowing which is his/her Catalog of Record. A student has five years to complete a program under the MCC catalog in effect at the time of initial registration at MCC. Students may also choose to complete program requirements in any succeeding catalog. If program requirements are changed in response to demands of external regulatory agencies or governing boards, students must meet those requirements. (The five-year limit applies to students whose first MCC enrollment was fall semester 1998 or after.)

Students who wish to change their program of study must complete a Change of Program Form through MCC Counseling and Career Services and follow the program requirements in effect at the time the change is made; students have five years from the date of the program change to complete their program under these requirements.

Upon completion of program requirements, students who wish to receive a diploma and have the completion of a degree or certificate verified and noted on their transcript must submit an application for graduation and graduation fee.

Registration
Registration for classes takes place for a designated period prior to the start of each semester. Changes to schedules may be made any time during scheduled registration dates. Registration for classes that do not meet for the full semester schedule will be allowed until the beginning date of the class(es).

It is recommended that transfer and degree or certificate seeking students meet with a counselor prior to each registration.

Registration may be completed by Internet or in person. Students are responsible for meeting course pre- and corequisites and must review the schedule carefully to recognize these requirements. All exceptions to assessment scores and pre- and corequisites require written departmental approval.

Students wishing to audit a course must declare the intention by submitting a course audit form at the time of registration. Any change to this status must be made in Enrollment Services before the end of the drop/add period that applies to the course.

Registration is not complete until tuition and fees are paid in full or a financial aid deferment has been approved and submitted by the payment deadline.

Dropping and Adding Classes

After registration, students may drop or add classes during the time period designated in the semester schedule; final drop dates for each course are noted on individual student's schedule as printed by Student Services. All tuition is refunded for classes dropped during the drop/add period. Fees are not refundable.

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. If the instructor approves the withdrawal, she/he will sign and date the form, indicate a grade of WP (withdrew passing) or WF (withdrew failing), indicate last date of attendance, return a copy to the student and present the form to Enrollment Services.

A withdrawal grade has no effect on grade point average but may impact financial aid eligibility.

Tuition and fees will not be refunded for withdrawal.

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. Students enrolled in online courses are expected to participate as outlined by instructors.

Grading System

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

GRADE	*QUALITY POINT VALUE
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	.7
E	0.0
WP	Withdrew while passing
WF	Withdrew while failing
I	Incomplete
V	Audit
S	Satisfactory completion
U	Unsatisfactory completion
AT	Articulated credit
TR	Transferred credit

**Quality Points are used to calculate the numerical value of grades earned divided by total GPA credit hours to determine Grade Point Average (GPA).*

INCOMPLETE GRADES may be requested by students when they cannot complete required course work by the close of a semester for reasons beyond their control. An I (incomplete) 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. If course requirements are not met by the deadline, the I grade will be changed to an E grade. (Students receiving Veterans' benefits who

receive an I grade may have up to one year to complete the course without repaying the VA for the class.)

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

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 to Enrollment Services, no later than the last day of the drop/add period for the course.

When REPEATING A COURSE, the higher grade earned for the course will be computed in the GPA. Credit will be given only once for a course. The grade earned for an equivalent course taken at another institution will not remove the grade of the MCC course from computation in the GPA. Students should check with the Financial Aid Office to determine if repeated courses are covered by financial aid funds.

S (satisfactory completion) and U (unsatisfactory completion) grades are used only for the following courses: CMIS090, CMIS100, CRIM115, DVED110, DVED120, DVED150, DVED151, DVED152, DVED153, DVED160, DVED161, DVED163, DVED170, DVED171, MATH050 and MATH075. An S grade will also be given when a student tests out of a course for credit. (These are subject to change.)

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

Academic Appeal

Students who believe that they have been issued an incorrect or unfair grade for a course or courses completed at MCC have access to the following appeal provisions:

1. Within 30 calendar days of the date that grades are issued, the student must provide the instructor who issued the grade with a written explanation of the grade concern and schedule a meeting to discuss the concern. At that meeting, the faculty member will review his or her grading policy with the student, explain to the student the rationale for the grade issued, and render a written response to the student's appeal. Students desiring additional information or assistance with this process should contact the Dean of Student Services. If the student is satisfied with the decision of the faculty member, the grade as issued or as altered by the faculty member will become a permanent part of the student's official transcript.
2. If the student is not satisfied with the decision of the faculty member, he/she will, within 14 calendar days of the faculty decision, make a written request for a review of the decision to the appropriate instructional administrator. The instructional administrator will schedule a meeting with the student and the faculty member to seek a remedy. At the conclusion of this meeting, the instructional administrator will render a written decision. If agreed to by both the faculty member and the student, this decision will become a permanent part of the student's record.
3. If the student is dissatisfied with the decision of the instructional administrator, he/she will, within five calendar days of the decision, request in writing a hearing with the Chief Academic Officer. The Chief Academic Officer will schedule a hearing to occur within ten working days of the written request from the student. All involved parties will be present for this hearing. Upon review of all evidence, issues and concerns, the Chief Academic Officer will render a decision, which will be final and binding on all parties. Documentation of this decision, along with all other written communication from this appeal process, will become a permanent part of the student's official academic record.

Honors

Each semester's Honors List includes students who complete at least 12 semester hours in the semester 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 in the semester with a GPA of 3.7 or higher. Part-time Honors lists are based on the same GPAs and include students who complete at least six credits in the semester.

Honors published in the commencement program and local newspapers are calculated based on the GPA of the previous semester as spring semester grades are not due until after commencement. At the time program completion is verified, students will have honors or high honors noted on their transcripts based on final GPA calculation as they meet the following GPA criteria: honors 3.3 to 3.69, high honors 3.7 or higher. Honors Lists are not generated during academic sessions, such as summer.

Academic Probation and Dismissal

1. The minimum GPA for making satisfactory progress is 2.00.

2. Students with an accumulated GPA 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 or dismissal 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 or dismissal 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 considered for readmission.

6. Students who remain on academic probation for two consecutive semesters or who are dismissed for unsatisfactory progress may 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.

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. Academic amnesty is irrevocable.

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.

Graduation

DEGREES & ONE-YEAR CERTIFICATES

Students who wish to receive a diploma and have the completion of a degree or certificate verified and noted on their transcript must submit an application for graduation. 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. Graduation is the verification of program completion. Commencement is the ceremony at which candidates for graduation are recognized for their anticipated achievement. Students who participate in commencement should not assume that they have successfully completed all program requirements until receiving verification from the Director of Enrollment Services.

A student has five years to complete a program under the MCC catalog in effect at the time of initial registration at MCC. (The five-year limit does not apply to students who were enrolled prior to the fall semester of 1998.) Students may also choose to complete program requirements in any succeeding catalog. If program requirements are changed in response to demands of external regulatory agencies or governing boards, students must meet those requirements.

Students have five years from the date of a program change to complete the program using the requirements in effect at the time of the change.

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 of the signed course waiver/substitution form 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 booklet.

3. Earn a minimum of 15 credits for an associate degree or 25 percent of the total credits required for a certificate while enrolled at MCC.

4. Apply for graduation.

5. Ensure proof of high school completion or GED certification is on file at MCC.

6. Have no unpaid balance on their account with the college. Students with an outstanding balance will not be eligible to participate in commencement or receive their diploma or grade report until the account is paid.

All students receiving a degree or one-year certificate who graduate during the academic year are invited and encouraged to participate in the annual May commencement ceremony.

JOB TRAINING CERTIFICATES

Students completing Job Training Certificate (JTC) programs must complete the JTC application to receive a certificate of completion and have the program completion noted on their transcripts. JTC completers are not eligible to participate in the commencement ceremony.

To be eligible to receive their certificate of completion, candidates must:

1. Complete course and credit hour requirements as outlined in the catalog. All course substitutions or waivers must be in writing and a copy of the signed course waiver/substitution form must be in the student's academic file.

2. Maintain an overall GPA of 2.0 or higher.

3. Earn a minimum of 25 percent of the total required credits from MCC.

4. Apply for the certificate of completion.

5. Have no unpaid balance on their account with the college. Students with an outstanding balance will not receive their certificate of completion, transcript or grade report until the account is paid.

Student Leave of Absence

A student may request a leave of absence due to a serious injury, illness, military commitments or other extreme circumstances involving extended absence from classes that prevents completion of the semester course work. The leave may enable a student to retake credits granted without paying tuition, technology fees and student activities fees.

1. The student must complete the Student Leave of Absence application. 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.

2. The student must have been in regular attendance up to the date of the documented emergency and provide verification of attempts to work with instructor(s) to successfully complete the course(s). The student will complete and submit Withdrawal and/or Incomplete forms for each course that they will not complete.

3. The Dean of Student Services may approve an account credit for tuition and fees in cases where a class grade of "C-" or below or a withdrawal grade has been given. With approval of a leave of absence, a Leave of Absence Approval Letter will be issued. The length of time granted by the leave will take into consideration the physician's recommendation as well as semester starting dates. The student will not be counted for financial aid eligibility during this time.

4. The student is responsible for any unpaid account balance. For students receiving State and Federal funding, the student may be in immediate repayment on financial aid loans and/or the student may be in default on Title IV funds. The student may owe repayment on VA benefits.

5. Should the student decide not to return, he or she will still be responsible for any unpaid balance. If the student does not return to Montcalm Community College as agreed by the terms of the Leave of Absence Contract, the account credit will be dropped from the student's account. At the time the leave expires, regular billing procedures will resume for both returning and non-returning students.

Family Educational Rights and Privacy Act (FERPA)

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.

As a part of the college's instructional program improvement efforts, and to meet the requirements of the Carl D. Perkins Vocational and Technical Education Act, Section 113 and the Workforce Investment Act of 1998, Section 122, MCC may use student Social Security Numbers to compile certain data for the purpose of instructional program improvement and Perkins and WIA reporting.

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 Student Services and the Director of Enrollment Services is responsible for their upkeep. Financial aid and Veterans' records are maintained in Financial Aid. Appropriate MCC personnel have access to student records.

3. Students wishing to inspect their records may do so by contacting the Director of Enrollment Services.

4. MCC will not disclose personally identifiable information from students' records without prior written consent except for directory information as defined in the Buckley Amendment Final Regulations Sub Part A 99.3. Definitions. Directory information includes the student's name, address, e-mail address, telephone number, date and place of birth, major field of study, full- or part-time status, participation in officially recognized activities and sports, weight and height of members 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 unresolved, may file their concern with the Department of Education.

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 (989) 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 Persons with Disabilities 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 Persons with Disabilities 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 James D. Lantz, 2800 College Drive, Sidney, Michigan 48885-9723, (989) 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.

LAWS
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 is 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/TOBACCO USE
MCC is a tobacco-free college. Students will not smoke or use tobacco at any MCC site, including on-campus and off-campus locations.

FIREARMS, EXPLOSIVES, OR WEAPONS
Possession or use of firearms, firecrackers, explosives, toxic or dangerous chemicals, other lethal weapons, equipment, or any material that can be construed as a weapon is not permitted on college property or at college or student sponsored functions.

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 considered an extremely serious violation of the rights of others at MCC and is subject to severe disciplinary action. Plagiarism, the 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 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 addresses 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 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 release of official transcript will be delayed until such accounts are paid.

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

Provisions for Review of Disciplinary Decisions

Any MCC student who is subject to disciplinary action for conduct deemed to be illegal, unethical, or not in accordance with the Code of Student Ethics shall have access to the following appeal process:

1. Within 10 days of the date that the disciplinary decision is rendered, the aggrieved student must submit a written request to the MCC employee rendering the decision to request an opportunity to discuss the matter. The ensuing discussion between the student and MCC employee may take place in-person or by some other means of communication, such as e-mail or telephone. During that discussion the student must supply the MCC employee with a written explanation of his/her actions and concerns regarding the disciplinary decision. The MCC employee will explain to the student his/her reason for rendering the disciplinary action. Within 10 days following this discussion, the MCC employee may revise or uphold his/her original decision.

2. If the student is satisfied with the decision of the MCC staff, the prescribed disciplinary action will remain in effect. If the student is not

satisfied with the MCC employee's decision, he/she will, within 14 calendar days of the decision, make a written request to the Dean of Student Services to review the decision. The Dean of Student Services will schedule a meeting with the student and the MCC employee to discuss the disciplinary action in accordance with MCC policy and seek a remedy of remaining conflicts. The Dean may consult other students, staff or others in an effort to obtain all pertinent facts. Within 10 days of the conclusion of this meeting, the Dean of Student Services will render a written decision.

2. Within 5 days of the decision rendered by the Dean of Student Services, the aggrieved student or the MCC employee may submit a written request to the President of the College to review the decision.

3. The review by the President shall be conducted in such a way as to assure both parties the right to provide supporting documentation, permission to question witnesses as needed, and such other processes as may be necessary to provide exposure to two points of view.

4. Upon review of all documentation, issues and concerns, the President will render a decision, which will be final and binding on 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:

Montcalm Center for Behavioral Health
611 N. State, Stanton, MI 48888
(989) 831-7520

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.

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 or special events or projects prevent access. 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 business day.

NOTE: *The Michigan State Police Operations Center provides a 24-hour school violence hotline. You can call the toll-free hotline at 1-800-815-TIPS to anonymously report threats of violence or illegal weapons on campus. Any risk of immediate harm should still be reported by calling 911. To call 911, you can use any telephone on campus, including the red courtesy phones located in each building. Contact the MCC Dean of Student Services for details at (989) 328-1245.*

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 as follows.

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 Office 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 Office 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. Your cooperation will facilitate safety for all."

It is the responsibility of students and staff to become aware of the location of tornado shelters in all buildings.

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, television or by visiting MCC's Web site. 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 or visit MCC's Web site at www.montcalm.edu.

RADIO STATIONS
WKLQ 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
WCFX Mt. Pleasant, 95.3 FM
WMLM St. Louis, 1520 AM
WFYC Alma, 1280 AM &104.9 FM
WBBL Grand Rapids, 1340 AM
WAYE Grand Rapids, 89.9 FM
WBFX Grand Rapids, 101.3 FM
WCSG Grand Rapids, 91.3 FM
WFGR Grand Rapids, 98.7 FM
WGRD Grand Rapids, 97.9 FM
WGVU Grand Rapids, 88.5 FM
WJNZ Grand Rapids, 1140 AM
WJQK Grand Rapids, 99.3 FM
WKWM Grand Rapids, 1140 AM
WLAV Grand Rapids, 96.9 FM
WLHT Grand Rapids, 95.7 FM
WNWZ Grand Rapids, 1410 AM
WSNX Grand Rapids, 104.5 FM
WTKG Grand Rapids, 1230 AM
WTRV Grand Rapids, 100.5 FM
WVTI Grand Rapids, 96.1 FM

TELEVISION STATIONS
WOOD Grand Rapids, Channel 8
WGVU Grand Rapids, Channel 35
WXSP Grand Rapids, Channel 15
WZZM Grand Rapids, Channel 13
WLNS Lansing, Channel 6
WWTV Cadillac, Channel 9

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.

GENERAL SITUATIONS
If you suspect that a crime is being committed or has been committed, call or visit the Montcalm County Sheriff's Office immediately. It is located at 659 N. State, Stanton, MI 48888. For emergencies, call 911. For non-emergencies call (989) 831-5253. An emergency is any situation needing immediate attention.

When calling the sheriff's office, 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, hair length and texture, body size, clothing description, scars and other noticeable markings, mode of travel, type of vehicle, color of vehicle and license number. The campus will be searched immediately for suspects and neighboring police agencies will be notified. In many incidents, the victim may already know the name of the person committing the assault.

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.

3. Call 911 immediately if you receive a bomb threat. Then, contact the office of the Vice President for Administrative Services located in the Administration/Library Building on MCC's Sidney campus. 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 office 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.

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. The Montcalm County Sheriff's Office and other local police agencies administer law enforcement responsibilities. 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.

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.

Continuing Education

Montcalm Community College is dedicated to providing educational experiences for all residents in our community. The noncredit courses, workshops and seminars offered through Continuing Education will help you prepare for the challenges of the 21st century by providing current and useful information on topics of interest to you in your personal or professional life. Courses are conveniently scheduled.

Courses

NONCREDIT COURSES for professional and personal development are offered throughout the year. These change as the needs of the community change. Courses have included computer instruction, management training, time management, financial planning and a variety of online courses. Noncredit courses are available on MCC's campus, online and throughout the community. Registration for noncredit 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 noncredit and recreation courses.

RECREATION CLASSES are popular with all ages. Swimming classes, which are conducted in MCC's NCAA-sized swimming pool, are offered for infants through senior citizens. Lifeguard training and water safety instructor training courses are conducted in cooperation with the physical education department and are offered for credit and noncredit. Other health courses such as weight training, aerobics and personalized body conditioning are offered in the MCC gym and fitness center. The MCC fitness center is an air-conditioned, self-directed exercise center featuring state-of-the-art fitness equipment, treadmills, stationary bicycles and a free-weight area. 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.

Programs

SUMMER DAY CAMPS for children offer a learning experience in a fun environment. The college hosts week-long science and fine arts camps.

MCC's LIFE-LONG LEARNERS program addresses the desire of retired citizens to continue learning by attending presentations or noncredit courses at a nominal fee. The LLL is open to all persons regardless of previous education. Members govern the group and lead some of the academic course work in lieu of professional faculty. Members enjoy academic pursuits without concern for credit, grades or prerequisites.

SPECIAL EVENTS focus on cultural, economic and social topics and are available to the community throughout the year.

For information about current courses and recreational opportunities, call Continuing Education at (989) 328-1260 or e-mail carolh@montcalm.edu.

Business & Industry Training

MCC offers high quality, guaranteed training programs in a variety of formats to area businesses. Services include quality, customized training for business and industry in a format that fulfills customer demand. Competency-based instruction is offered in flexible delivery formats such as:

- Open-entry/open-exit training
- Traditional classroom training
- Video-based training
- Internet classes
- Hands-on application training at local employer sites

MCC offers an extensive list of courses that includes information technology, manufacturing skills and technology, business literacy, quality and teamwork. Other business services include business consultation, needs assessments, employee assessments, grant petitions, evaluations, records retention, apprenticeships and contracted training administration.

Workplace skills may be assessed and evaluated through the ACT WorkKeys™ Service Center which specializes in job profiling, task analysis, and employee assessments as well as using the DACUM method.

MCC's business and industry services are located at MCC's Michigan Technical Education Center (M-TEC) in Greenville and on MCC's Sidney campus.

For more information about business and industry services contact MCC's Director of Workforce Development at (989) 328-1214 or MCC's Dean of Continuing Education at (989) 328-1254.

College Facilities

ON CAMPUS

ACTIVITIES BUILDING: This building contains a NCAA-size pool, a gymnasium with climbing wall and fitness center, the bookstore, the food services area and a student lounge area. All facilities are available to students and community members.

ADMINISTRATION/LIBRARY BUILDING: This building houses administrative offices, the student services office, financial aid and the library. Public computers, Internet access and study areas are available in the library.

BARN THEATER: MCC's performing arts facility, the Barn Theater, is located west of College Drive.

BEATRICE E. DOSER BUILDING: This building houses seminar and conference space, the Learning Support Center, computer labs and classrooms, general classrooms, a telecommunications classroom and instructors' offices.

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

FOUNDATION FARMHOUSE: The Foundation farmhouse is a charming and comfortable meeting center located on Sidney Road west of College Drive.

INSTRUCTION EAST BUILDING: This two-story building contains labs, classrooms and instructors' offices and is a primary instruction area for the college's math, science and allied health offerings.

INSTRUCTION NORTH BUILDING: This is MCC's visual arts building. It features a gallery, open display areas and classrooms for ceramics, drawing, painting and photography.

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

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

NATURE TRAILS: The Kenneth J. Lehman Nature Trails encompass three miles of hiking and cross-country skiing trails that wind their way through more than 100 acres adjacent to the college's main campus. Biology students use the nature trails for short field trips and research projects. More than 70 numbered markers have been installed along the trails and, with a guide map, visitors discover many species of flowers, trees and possibly wildlife as well as an outdoor classroom for studying botany and biology in a natural setting.

STANLEY P. ASH BUILDING: This two-story facility includes science classrooms, an auditorium, nursing, chemistry and biology laboratories, and instructors' offices.

For information about facility rental, call Continuing Education at (989) 328-1252.

OFF CAMPUS

ALMA: The Gratiot Technical Education Center (GTEC) is located at 327 E. Center in Alma and provides classrooms for nursing and science classes.

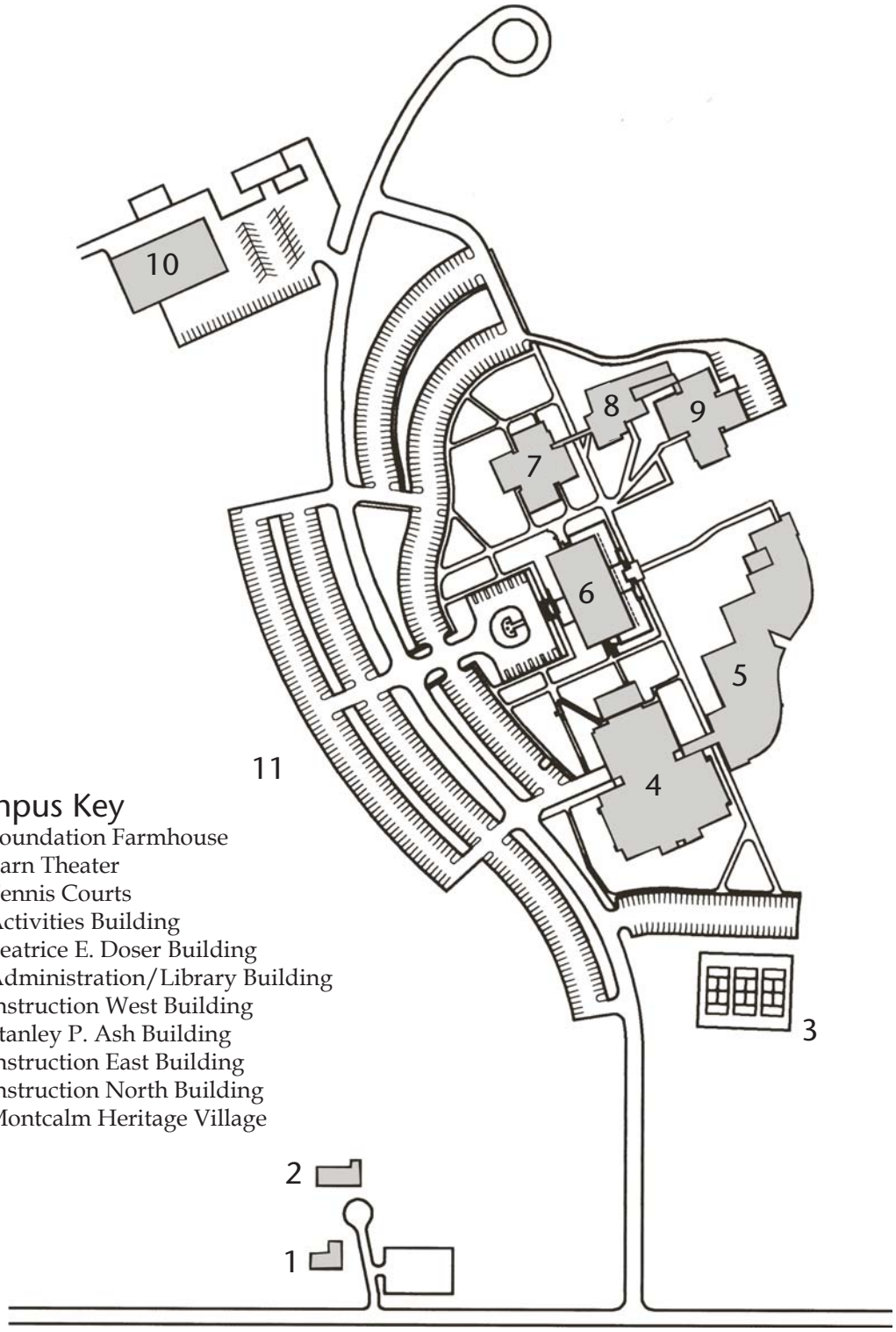
GREENVILLE: MCC's Michigan Technical Education Center (M-TEC) is located at 1325 Yellow Jacket Drive in Greenville. This center offers open-entry, open-exit skills training to meet business and industry needs. The M-TEC also houses classrooms, a large conference facility, computer and learning labs and display areas.

HOWARD CITY: The Panhandle Area Center (PAC) is located at 5856 Federal Road in Howard City. It has classrooms, a computer lab and office space for MCC activities.

IONIA: MCC's Ionia Educational Center (IOEC) is located adjacent to Ionia High School at 250 E. Tuttle Road in Ionia. This facility provides a suite of offices as well as several conference rooms and classrooms.

Handicapped students and senior citizens with limited mobility are encouraged to use MCC's facilities. The buildings are barrier-free and every attempt is made to provide additional accommodations if required.

Campus Map



Campus Key

1. Foundation Farmhouse
2. Barn Theater
3. Tennis Courts
4. Activities Building
5. Beatrice E. Doser Building
6. Administration/Library Building
7. Instruction West Building
8. Stanley P. Ash Building
9. Instruction East Building
10. Instruction North Building
11. Montcalm Heritage Village

Montcalm Community College
2800 College Drive, Sidney, MI 48885-9723 * (989) 328-2111

Academic Programs

Degrees & Certificates

Montcalm Community College offers associate of arts, science, liberal studies, general studies and applied science degrees, as well as several certificate programs. Specific curriculum requirements for each of the degree and certificate programs are found starting on page 40. Associate degrees require a minimum of 60 credits; certificates require a minimum of 30 credits. All program course requirements must be met. Students planning to transfer to a four-year college or university are advised to consult with a counselor during their first semester.

Associate of Arts Degree

Associate of Science Degree

Associate of Liberal Studies Degree

Associate of General Studies Degree

Associate of Applied Science Degrees

- Accounting
- Automotive Technology
- Business Administration – Entrepreneurship
- Business Administration – Management
- Business Administration – Marketing
- Business Information Systems
- Computer Support Technology
- Cosmetology Management
- Criminal Justice – Corrections
- Criminal Justice – General
- Early Childhood Development
- Education Paraprofessional
- Electronics Technology
- Engineering Technology
- Industrial Technology
- Information Systems
- Integrated Manufacturing Technology
- Medical Information Systems
- Nursing
- Small Business Development/Management – Residential Construction
- Technical Drafting & Design

Multiple Degree Procedure

Students may receive more than one Associate of Applied Science (AAS) degree if they fulfill the requirements specified by more than one department. Students may simultaneously complete more than one area of concentration within a department, such as information systems and medical information systems. An area of concentration completed after an AAS degree is issued will be noted on the transcript.

Students who have been awarded an Associate of Arts (AA), Associate of Science (AS), Associate of Liberal Studies (ALS) or Associate of Applied Science (AAS) degree are not eligible to receive an Associate of General Studies (AGS) degree. Students may not earn an AGS degree and another degree in the same semester. Students who have been awarded an AS degree are not eligible to receive an ALS degree.

To receive an Associate of Applied Science degree, students must complete the degree requirements for that specific program. The completion of a certificate program coupled with general education courses is not sufficient to qualify.

Certificate Programs

- Automotive Technology
- Computer Support
- Cosmetology
- Criminal Justice – Corrections
- Electronics Technology
- Entrepreneurship
- Information Processing Assistant
- Integrated Manufacturing Technology
- Liberal Studies
- Machine Tool Operation
- Medical Assistant
- Practical Nursing
- Small Business Development/Management – Automotive Technology
- Small Business Development/Management – Residential Construction
- Technical Drafting
- Welding Technology

Job Training Certificates

Apprenticeship Training
Automotive Service
Automotive Brake Systems
Automotive Suspension & Steering
Automotive Electrical & Electronic Systems
Automotive Engine Performance
Automotive Heating & Air Conditioning
Builder's Pre-licensure Preparation
Child Development Associate
CIS Job Readiness
Corrections Officer Training
Digital Publishing & Presentation
Emergency Medical Technician
Entrepreneurship
Input Productivity
Long-Term-Care Nurse Assistant
Nurse Assistant
Office Applications
Professional Studies
Residential Construction
Retail
Retail Management
Supervision
Web Design Specialist

Certificates & Associate Degrees through Articulation

MCC credits transfer to many other colleges and universities. The following partnerships have been developed to facilitate transfer. These partnerships allow students to earn certificates and degrees at other institutions. Additional bachelor's degree completion opportunities may be available. Students should see a counselor in MCC's Student Services Office for the most current information.

Ferris State University
Jackson Community College
Lansing Community College
Michigan State University
Mid Michigan Community College

Bachelor's Degrees through Articulation

Central Michigan University
Davenport University – *(Grand Rapids Campus)*
Ferris State University
Franklin University (Online)
Governors State University (Online and Video)
Grand Valley State University
Northwood University
Saginaw Valley State University
Spring Arbor College
University of Phoenix – *(Grand Rapids Campus)*
Western Michigan University

For complete, current information, go to Transfer Information at http://www.montcalm.edu/counseling/counsel.htm.

Virtual Learning

MCC participates in the Michigan Community College Virtual Learning Collaborative (MCCVLC) which allows students to take courses and earn certificates and associate degrees via the Internet from other community colleges around the state. Additional information can be obtained in MCC's Counseling and Career Services Office or by visiting the Web site at www.mccvlc.org.

Associate of Arts (AA)

Students seeking the Associate of Arts degree may concentrate their studies in numerous content areas. A counselor should be consulted particularly if the student plans to transfer to a four-year institution.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 6 credits
ENGL100 & ENGL101

Oral Communications: 3 credits
Choose at least one of the following: COMM210, COMM220, ENGL212, or THEA261.

Laboratory Science: 4 credits
Choose at least one of the following: BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231. (The science requirement may also be met through competency testing.)

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher. Math requirement may also be met through competency testing. (MATH100 does not satisfy MACRAO requirements.)

Social Science: 11 credits
Must include POLI110 or POLI240 plus at least two or three of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 11 credits
Must include both HUMN200 and HUMN201 plus at least one of the following: ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101, CMIS115, CMIS175 or competency testing.

Program Requirements

Total Required General Education Credits	42
Total Elective Credits	18
Total Credits Required for Degree	60

Associate of Science (AS)

Students seeking the Associate of Science degree should consult a counselor if planning to transfer to a four-year institution.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 6 credits
ENGL100 & ENGL101

Oral Communications: 3 credits
Choose at least one of the following: COMM210, COMM220, ENGL212, or THEA261.

Laboratory Science: 16 credits
Biological Science (8 credits) Choose at least two of the following: BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, or BIOL208.

Physical Science (8 credits) Choose either CHEM220 and CHEM221 or CHEM251 and CHEM252 or PHYS230 and PHYS231.

Mathematics: 4 credits
Choose one or more of the following: MATH159, MATH250, MATH251, MATH252, or MATH290. (The math requirement may also be met through competency testing.)

Social Science: 8 credits
Must include either POLI110 or POLI240 plus at least one or two of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 8 credits
Must include both HUMN200 and HUMN201 or at least three of the following (with different prefixes): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN100, HUMN200, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101, CMIS115, CMIS175 or competency testing.

Program Requirements

Total Required General Education Credits	48
Total Elective Credits	12
Total Credits Required for Degree	60

Associate of Liberal Studies (ALS)

Students seeking the Associate of Liberal Studies degree may concentrate their studies in numerous content areas. A counselor should be consulted particularly if the student plans to transfer to a four-year institution.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 6 credits
ENGL100 & ENGL101

Oral Communications: 3 credits
Choose at least one of the following: COMM210, COMM220, ENGL212, or THEA261.

Laboratory Science: 4 credits
Choose at least one of the following: BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231. (The science requirement may also be met through competency testing.)

Mathematics: 4 credits
MATH102, MATH104, MATH120 or higher. (The math requirement may also be met through competency testing.)

Social Science: 8 credits
Must include either POLI110 or POLI240 plus at least one or two of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 8 credits
Must include both HUMN200 and HUMN201 or at least three of the following (with different prefixes): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN100, HUMN200, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101, CMIS115, CMIS175 or competency testing.

Program Requirements

Total Required General Education Credits	36
Total Elective Credits	24
Total Credits Required for Degree	60

Associate of General Studies (AGS)

The Associate of General Studies degree is 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 requirements. Students should consult a counselor for program planning assistance.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 1.5-3 credits
Choose at least one of the following: COMM210, COMM220, CRIM136, ENGL212, NURS121A, or THEA261.

Laboratory Science: 3-4 credits
Choose at least one of the following: BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231. (The science requirement may also be met through competency testing.)

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher. (The math requirement may also be met through competency testing.)

Social Science: 4 credits
Must include either POLI110 or POLI240 plus at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
Choose HUMN100 or HUMN200 or at least two of the following (with different prefixes): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101, CMIS115, CMIS175 or competency testing.

Program Requirements

Total Required General Education Credits	22.5-25
Total Elective Credits	35-37.5
Total Credits Required for Degree	60

ACCOUNTING

This program leads to an associate of applied science degree with an emphasis in accounting and provides the background and skills necessary for an entry-level job in the accounting field.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 3-4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115 or CMIS175

Program Requirements

Course Name	*Course #*	*Cr.*
Principles of Accounting I	ACCT115	4
Principles of Accounting II	ACCT116	4
Computerized Accounting	ACCT212	4
Tax Accounting	ACCT246	3
Introduction to Business	BUSN135	3
Legal Environment of Business	BUSN200	3
Business Practice Firm	BUSN283	3
Principles of Macroeconomics	ECON215	3
Small Business Management	MGMT235	3
Organizational Behavior	MGMT250	3
Electives		2-5

Suggested Electives

Business Communications I	BUSN180	3
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3
Advertising	MRKT248	3
Human Resource Management	MGMT245	3

Automotive Technology

Applied Science Associate

This program leads to an associate of applied science degree with a specialty in automotive technology and provides the background and skills necessary for a job in the automotive field. It is designed for students seeking entry-level employment and/or State of Michigan certification.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101

Program Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Advanced Automotive Electrical	AUTO113	2
Industrial First Aid	INDS155B	0.5
Fundamentals of Welding	WELD101	3

Students must also choose four of the following five specializations:

Automotive Brake Systems	AUTO107	4
and Automotive Brake Systems Field Experience	AUTO292B	4
Automotive Suspension & Steering	AUTO109	4
and Automotive Suspension & Steering Field Experience	AUTO292C	4
Automotive Electrical & Electronic Systems	AUTO203	4
and Automotive Electrical & Electronic Systems Field Experience	AUTO292D	4
Automotive Engine Performance	AUTO205	4
and Automotive Engine Performance Field Experience	AUTO292E	4
Automotive Heating & Air Conditioning	AUTO262	4
and Automotive Heating & Air Conditioning Field Experience	AUTO292F	4

AUTOMOTIVE TECHNOLOGY CERTIFICATE AND JOB TRAINING CERTIFICATE PROGRAMS ARE ALSO AVAILABLE.

Applied Science Associate

Business Administration/Entrepreneurship

This program leads to an associate of applied science degree with an emphasis in entrepreneurship and provides the skills necessary for an entry-level job in the field of small business management.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 3-4 credits
MATH100, MATH102, MATH104, MATH120 or higher

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Tax Accounting	ACCT246	3
Legal Environment of Business	BUSN200	3
Customer Relations	BUSN251	1
International Business	BUSN260	3
Microcomputer Applications	CMIS175	4
Principles of Macroeconomics	ECON215	3
Small Business Management	MGMT235	3
Human Resource Management	MGMT245	3
Strategic Management	MGMT275	3
Choose at least two of the following:		
Marketing Research	MRKT230	3
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3
Advertising	MRKT248	3

Suggested Electives

Principles of Accounting I	ACCT115	4
Principles of Accounting II	ACCT116	4
Computerized Accounting	ACCT212	4
Introduction to Business	BUSN135	3
Business Practice Firm	BUSN283	3
Field Experience	BUSN292	3-5

Business Administration/Management

Applied Science Associate

This program leads to an associate of applied science degree with an emphasis in management and provides the skills necessary for an entry-level job in the fields of management and supervision.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 3-4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Principles of Accounting I	ACCT115	4
Principles of Accounting II	ACCT116	4
Legal Environment of Business	BUSN200	3
International Business	BUSN260	3
Business Practice Firm	BUSN283	3
Principles of Macroeconomics	ECON215	3
Concepts of Management	MGMT237	3
Human Resource Management	MGMT245	3
Organizational Behavior	MGMT250	3
Strategic Management	MGMT275	3
Choose at least one of the following:		
Marketing Research	MRKT230	3
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3
Advertising	MRKT248	3
Electives		3-5

Suggested Electives

Computerized Accounting	ACCT212	4
Tax Accounting	ACCT246	3
Introduction to Business	BUSN135	3
Customer Relations	BUSN251	1
Business Communications I	BUSN180	3
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3
Advertising	MRKT248	3

Applied Science Associate

Business Administration/Marketing

This program leads to an associate of applied science degree with an emphasis in marketing and provides the skills necessary for an entry-level job in the field of marketing.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 3-4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Principles of Accounting I	ACCT115	4
Legal Environment of Business	BUSN200	3
International Business	BUSN260	3
Business Practice Firm	BUSN283	3
Principles of Macroeconomics	ECON215	3
Organizational Behavior	MGMT250	3
Strategic Management	MGMT275	3
Marketing Research	MRKT230	3
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3
Advertising	MRKT248	3
Electives		1-3

Suggested Electives

Principles of Accounting II	ACCT116	4
Computerized Accounting	ACCT212	4
Tax Accounting	ACCT246	3
Introduction to Business	BUSN135	3
Customer Relations	BUSN251	1
Business Communications I	BUSN180	3
Field Experience	BUSN292	3-5
Human Resource Management	MGMT245	3

Business Information Systems

Applied Science Associate

This program leads to an associate of applied science degree 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.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications 3 credits:
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-5 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Principles of Accounting I	ACCT115	4
Legal Environment of Business	BUSN200	3
Introduction to Programming and Logic	CMIS130	4
Microcomputer Applications	CMIS175	4
Microcomputer Spreadsheets	CMIS250	3
Microcomputer Data Base Applications	CMIS255	4
Advanced Microcomputer Applications	CMIS260	4
Systems Analysis & Design	CMIS265	4
Concepts of Management	MGMT237	3
Organizational Behavior	MGMT250	3

Suggested Electives

Business Communications I	BUSN180	3
Intermediate Algebra	MATH104	4
Elementary Statistics	MATH190	3

Applied Science Associate

Computer Support Technology

This associate of applied science degree program specializes in computer technology support and provides the background and skills necessary for entry-level jobs as computer help-desk technicians or computer support technicians. Students in this program study mathematics, circuits, operating system maintenance, programming, network management, computer hardware maintenance and peripheral maintenance. Most courses are a combination of lecture and laboratory providing the student with practical hands-on experience. This program is designed to prepare students for COMPTIA A+ certification.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3 credits
PHYS111

Mathematics: 3 credits
MATH120 *(Prerequisites: MATH100 and MATH104)*

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr*
Introduction to Programming & Logic	CMIS130	4
Introduction to Programming C++	CMIS131	4
Introduction to HTML Programming	CMIS132	3
Concepts of Electricity	CSTC100	3
Electronic Fabrication	CSTC105	1
Introduction to Networking	CSTC127	3
Digital Logic	CSTC130	3
Network Management	CSTC133	3
Computer Maintenance I	CSTC171	3
Computer Maintenance II	CSTC172	3
Technical Writing for Business & Industry	INDS140	3
Introduction to College Physics II	PHYS112	3

A COMPUTER SUPPORT CERTIFICATE PROGRAM IS ALSO AVAILABLE.

Cosmetology Management

Applied Science Associate

Graduates of the cosmetology management program possess skills and knowledge to provide services to customers and to operate as shop managers in today's business setting. Some may wish to emphasize entrepreneurial skills with plans to open their own shops in the future. In addition to the courses required for degree completion, students must be eligible for state cosmetology licensure testing.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 3-4 credits
MATH100, MATH102, MATH104, MATH120 or higher

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Students who hold a valid State of Michigan Cosmetology License issued within the last 24 months may be granted 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.

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Small Business Management	MGMT235	3
Electives		1-3

A COSMETOLOGY CERTIFICATE PROGRAM IS ALSO AVAILABLE.

Applied Science Associate

Criminal Justice/Corrections

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

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
CRIM136, COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101, CMIS115, CMIS175 or competency testing.

Program Requirements

Course Name	*Course #*	*Cr.*
Introduction to Criminal Justice	CRIM100	3
Introduction to Corrections	CRIM110	3
Stress Management for Correctional Officers	CRIM115	1
Corrections Institutions/Facilities	CRIM120	3
Communication in Criminal Justice	CRIM136	3
PPCT Defensive Tactics	CRIM137	2
Emergency Intervention Techniques	CRIM138	2
American Criminal Law	CRIM210	3
Legal Issues in Corrections	CRIM220	3
Parole, Probation, and Community Corrections	CRIM235	3
Client Relations in Corrections	CRIM250	3
Client Growth & Development	CRIM260	3
Freshman English II	ENGL101	3
Electives		3-5

Suggested Electives

Organizational Behavior	MGMT250	3
Criminal Justice Practicum	CRIM290	5
General Psychology	PSYC120	3

CRIMINAL JUSTICE/CORRECTIONS CERTIFICATE AND CORRECTIONS OFFICER JOB TRAINING CERTIFICATE ARE ALSO AVAILABLE.

Criminal Justice/General

Applied Science Associate

This associate of applied science degree program prepares successful graduates for careers in the criminal justice field. It is also designed to provide transferability to four-year colleges and universities that offer a bachelor's degree in criminal justice or related fields.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 6 credits
ENGL100 and ENGL101

Oral Communications: 3 credits
COMM210

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 6 credits
POLI240 and PSYC120

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101, CMIS115, CMIS175 or competency testing.

Program Requirements

Course Name	*Course #*	*Cr.*
Introduction to Criminal Justice	CRIM100	3
Introduction to Corrections	CRIM110	3
Corrections Institutions/Facilities	CRIM120	3
Police Administration and Operations	CRIM125	3
Criminal Investigation	CRIM130	3
PPCT Defensive Tactics	CRIM137	2
American Criminal Law	CRIM210	3
Juvenile Delinquency	CRIM230	3
Introduction to Security Systems	CRIM240	3
Electives		5-6

Suggested Electives

Introduction to Computer Information Systems	CMIS115	3
Communication in Criminal Justice	CRIM136	3
Criminal Justice Practicum	CRIM290	5
Organizational Behavior	MGMT250	3
Elementary Spanish I	SPAN130	4

A CRIMINAL JUSTICE/CORRECTIONS CERTIFICATE AND CORRECTIONS OFFICER JOB TRAINING CERTIFICATE ARE ALSO AVAILABLE.

Applied Science Associate

Early Childhood Development

This program is for students who desire training that satisfies state requirements for Headstart programs, day care centers, home daycare and related areas.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or a combination of POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115 or CMIS175

Program Requirements

Course Name	*Course #*	*Cr.*
Emergency Health Care	AHEA100	2
Introduction to CDA	ECDV100	1
Child Development: Infants & Toddlers	ECDV110	3
Child Development: Preschoolers	ECDV120	3
Infant/Toddler Curriculum	ECDV131	3
Preschool Curriculum	ECDV135	3
Administration of Early Childhood Programs	ECDV150	3
Children with Special Needs	ECDV160	3
Children's Literature	ENGL235	3
Small Business Management	MGMT235	3
General Psychology	PSYC120	3
Child Psychology	PSYC221	3
Electives		3

Suggested Electives

Legal Environment of Business	BUSN200	3
Child Development: The School Age Child	ECDV125	3
Michigan Child Care Futures: Basic	ECDV140	1
Michigan Child Care Futures: Advanced	ECDV141	1
Introduction to Teaching	EDUC100	3
Organizational Behavior	MGMT250	3
Sociology	SOCI230	3
Elementary Spanish	SPAN130	4

A CHILD DEVELOPMENT ASSOCIATE JOB TRAINING CERTIFICATE IS ALSO AVAILABLE.

EDUCATION PARAPROFESSIONAL

Applied Science Associate

This program prepares students to be qualified educational paraprofessionals in Title I schools and other school districts complying with the No Child Left Behind Act of 2001. The Education Paraprofessional program offers students a solid foundation in general education courses as well as education-related courses. Numerous elective courses are available to tailor the program to each student's specific interests.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210, COMM220, or ENGL212

Laboratory Science: 3-4 credits
Choose at least one of the following: BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231. (The science requirement may also be met through competency testing.)

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
Choose HUMN100 or HUMN200 or two of the following (with different prefixes): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS101, CMIS115, CMIS175 or competency testing.

Program Requirements

Course Name	*Course #*	*Cr.*
Introduction to Teaching	EDUC100	3
General Psychology	PSYC120	3
Child Psychology	PSYC221	3
Electives		28-29

Suggested Electives

Emergency Health Care	AHEA100	2
Art for the Elementary Teacher	ARTS225	3
American Sign Language I	COMM125	3
American Sign Language II	COMM126	3
Juvenile Delinquency	CRIM230	3
Career Development	DVED110	1
Dealing with Stress	DVED120	1
Child Development: The School Age Children	ECDV125	3
Children with Special Needs	ECDV160	3
Children's Literature	ENGL235	3
Youth Literature	ENGL236	3
Mathematics for Elementary Teachers I	MATH151	4
Mathematics for Elementary Teachers II	MATH152	3
Music in the Elementary Classroom	MUSI110	3
Introduction to Physical Fitness	PHED110	1
Abnormal Psychology	PSYC225	3
Introduction to Social Science II	SOCI111	4
Sociology	SOCI230	3
Social Problems	SOCI235	3

Applied Science Associate

ELECTRONICS TECHNOLOGY

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 on computers or industrial electronics. A counselor or instructor can help select the proper elective courses for these areas.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3 credits
PHYS111

Mathematics: 3 credits
MATH120 *(Prerequisites: MATH100 and MATH104)*

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115 or CMIS175

Program Requirements

Course Name	*Course #*	*Cr.*
DC Electronics	ELEC111	3
AC Electronics	ELEC112	3
Semiconductors & Instrumentation	ELEC115	3
Digital Logic	CSTC130	3
Electronic Circuits	ELEC210	3
Digital Electronics	ELEC230	3
Microprocessors	ELEC240	3
Industrial Electrical Maintenance I	ELEC251	2
Industrial Electrical Maintenance II	ELEC252	2
Industrial Electrical Maintenance III	ELEC253	2
Industrial Electrical Maintenance IV	ELEC254	2
Electronics Mathematics	MATH114	4
Introduction to College Physics II	PHYS112	3
Electives		1

Suggested Electives

Introduction to Programming & Logic	CMIS130	4
Introduction to Programming C++	CMIS131	4
Introduction to HTML Programming	CMIS132	3
Computer Maintenance I	CSTC171	3
Computer Maintenance II	CSTC172	3
Statistical Process Control	INDS104	1
Industrial Safety	INDS155A	1.5
Industrial First Aid	INDS155B	0.5
Basic Fluid Power	INDS253	3
Manufacturing Processes	INDS260	2
Industrial Quality Control	INDS270	3
College Algebra	MATH159	4

COMPUTER SUPPORT AND ELECTRONICS TECHNOLOGY CERTIFICATE PROGRAMS ARE ALSO AVAILABLE.

Engineering Technology

Applied Science Associate

Graduates of this program have a well-rounded background preparing them for work in engineering technology. This program offers many hours of practical experience to compliment the theory. This program may be transferable to a four year university for a degree in engineering technology.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210

Laboratory Science: 4 credits
PHYS230

Mathematics: 7 credits
MATH120 and MATH159 or higher *(Prerequisites: MATH100 and MATH104)*

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Introductory Chemistry	CHEM105	4
Microcomputer Applications	CMIS175	4
Freshman English II	ENGL101	3
OR Technical Writing for Business & Industry	INDS140	3
Basic Machine Operations	INDS220	3
Advanced Machine Operations	INDS221	3
Introduction to CAD	TDSN250	4
Electives (**must be chosen from the list below**)		11

Electives

Industrial Electrical Maintenance III	ELEC253	2
Industrial Electrical Maintenance IV	ELEC254	2
Industrial Control Systems–Siemens	ELEC263	4
Metallurgy & Heat Treatment	INDS130	2
Introduction to Material Science	INDS230	3
Basic Fluid Power	INDS253	3
Advanced Pneumatics	INDS255	3
Manufacturing Processes	INDS260	2
Industrial Problem Solving	INDS265	2
Industrial Quality Control	INDS270	3
Advanced CAD	TDSN251	4
Fundamentals of Welding	WELD101	3

Applied Science Associate

INDUSTRIAL TECHNOLOGY

Graduates of this program have a well-rounded background preparing them for work in industrial manufacturing. This program offers many hours of practical, hands-on experience to complement the theory and may be transferable to a four-year university.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3 credits
PHYS111

Mathematics: 3 credits
MATH120 *(Prerequisites: MATH100 and MATH104)*

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
DC Electronics	ELEC111	3
Basic CNC Operation	INDS102	2
Metallurgy and Heat Treatment	INDS130	2
Basic Machine Operation	INDS220	3
Basic Fluid Power	INDS253	3
Manufacturing Processes	INDS260	2
Industrial Quality Control	INDS270	3
Introduction to College Physics II	PHYS112	3
Technical Drafting I	TDSN100	4
Industrial Communications	TDSN103	2
Reading Engineering Drawings	TDSN105	2
Layout & Precision Measurement	TDSN106	2
Geometric Dimensioning & Tolerancing	TDSN125	2
Introduction to CAD	TDSN250	4
Welding Technology Electives		3

MACHINE TOOL OPERATION, TECHNICAL DRAFTING AND WELDING TECHNOLOGY CERTIFICATE PROGRAMS ARE ALSO AVAILABLE.

Information Systems

Applied Science Associate

Graduates of this program have knowledge of general business, accounting and communication as well as the use of computer productivity tools.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 3-4 credits
MATH100, MATH102, MATH104, MATH120 or higher

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Employability Skills	BUSN141	3
Business Mathematics	BUSN160	3
Business Communications II	BUSN185	3
Ten-Key Numeric Entry	CMIS104	1
Document Production III	CMIS284	2
Input Technologies	CMIS146	2
Microsoft Outlook I	CMIS153	1
Microcomputer Applications	CMIS175	4
OR all of the following:		
Microsoft Word III	CMIS285	2
Microsoft Excel III	CMIS286	2
Microsoft Access III	CMIS287	2
Microsoft PowerPoint III	CMIS288	2
Records Management	CMIS190	3
Advanced Microcomputer Applications	CMIS260	4
Office Administration	CMIS270	3
Electives		5-6

Suggested Electives

Introduction to Business	BUSN135	3
Handheld Computer Productivity	CMIS147	1
Project Management	CMIS151	3
PDF Publishing	CMIS163	2
Microsoft Publisher I	CMIS176	1
Microsoft Publisher II	CMIS280	2
Field Experience	CMIS290	3
Organizational Behavior	MGMT250	3

AN INFORMATION PROCESSING ASSISTANT CERTIFICATE PROGRAM IS ALSO AVAILABLE.

Applied Science Associate

Integrated Manufacturing Technology

Graduates of this program have a well-rounded background preparing them for work in integrated manufacturing. This program offers many hours of practical, hands-on experience to complement the theory and may be transferable to a four-year university.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM220

Laboratory Science: 4 credits
PHYS101

Mathematics: 3-4 credits
MATH100, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115 or CMIS175

Program Requirements

Course Name	*Course #*	*Cr.*
Keyboarding	CMIS100*	1
Microsoft Excel I	CMIS157*	1
DC Electronics	ELEC111	3
AC Electronics	ELEC112	3
Semiconductors & Instrumentation	ELEC115	3
Industrial Electrical Maintenance I	ELEC251	2
Industrial Electrical Maintenance II	ELEC252	2
Industrial Control Systems-Siemens	ELEC263	4
Technical Writing for Business & Industry	INDS140	3
Industrial Safety	INDS155A	1.5
Basic Fluid Power	INDS253	3
Advanced Pneumatics	INDS255	3
Industrial Problem Solving	INDS265	2
Industrial Quality Control	INDS270	3
Basics of Vacuum Technology	INDS275	3
Applied Algebra	MATH110*	2
Electronics Mathematics	MATH114	4

**These program requirements may be waived by competency testing.*

AN INTEGRATED MANUFACTURING TECHNOLOGY CERTIFICATE PROGRAM IS ALSO AVAILABLE.

Medical Information Systems

Applied Science Associate

This program prepares students who wish to specialize in medical transcription and medical office procedures for employment or advancement.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 3-4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, HUMN271, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Medical Insurance & Coding	AHEA113	2.5
Medical Terminology	AHEA215	3
Business Mathematics	BUSN160	3
Business Communications I	BUSN180	3
Customer Relations	BUSN251	1
Ten-Key Numeric Entry	CMIS104	1
Input Technologies	CMIS146	2
Records Management	CMIS190	3
Medical Office Procedures	CMIS220	3
Voice Transcription: Medical	CMIS235	3
Office Administration	CMIS270	3
Document Production III	CMIS284	2
Electives		2-3

Suggested Electives

Emergency Health Care	AHEA100	2
Employability Skills	BUSN141	3
Introduction to Business	BUSN135	3
Handheld Computer Productivity	CMIS147	1

NURSING

Nursing is a changing and dynamic health care profession predicted to have one of the largest numbers of new job openings in this decade and the next. Nurses are employed in hospitals, nursing homes, ambulatory care, home health, public health, occupational health, schools and nursing education.

To provide options to reflect the variety of educational paths available to future nursing professionals, the nursing program at MCC is offered in a laddered approach. Successful completion of the first rung of the ladder, either on or off campus, prepares students as practical nurses (PN) for which a certificate is earned qualifying them to take the National Council Licensing Examination/Computer Adaptive Testing (NCLEX-PN/CAT) for licensure as a Licensed Practical Nurse (LPN). Students successfully completing the second rung of the ladder, whether progressing or entering as LPNs, earn the applied science degree in nursing (ADN) and are eligible to apply for the NCLEX-RN/CAT for licensure as a Registered Nurse (RN).

COMPASS testing is required for reading and math with minimum COMPASS reading score of 82 and minimum COMPASS Pre-algebra score of 44. Detailed information about the nursing programs is in the nursing booklet that is available from Student Services or online at www.montcalm.edu/programs/viewprograms.asp. Look for the Nursing Booklet link at the top of the Nursing program page. Updates to the nursing booklet supersede information contained in the catalog. It includes the Tracking List Request Form that determines admission into the program.

Admission into the nursing program is dependent upon available space; it is not guaranteed immediately upon acceptance. If there are more students interested in progressing into the ADN program than there are available seats, admission will be determined by GPA. Progressing students have priority over advanced standing students.

Students must complete a criminal background check (CBC) when making application to the tracking list and again at the time of acceptance to the nursing program.

Legal Consideration (Felony Statement): Previous treatment for substance abuse or conviction of a misdemeanor punishable by imprisonment for a maximum term of two years may prevent an applicant from taking the NCLEX-PN/CAT or NCLEX-RN/CAT. Individuals with a conviction history must submit to the Board of Nursing a written explanation of the circumstances for which subsequent determination should be made regarding licensure eligibility in the State of Michigan.

General Education Requirements

(All general education requirements must be completed prior to admission to the nursing program.)

Written Communications: 3 credits
- ENGL100 (prior to admission into PN program)

Oral Communications: 1.5 credits
- *NURS121A (may be taken two years prior to admission)

Laboratory Science: 12-20 credits
- All science courses must be taken within 7 years prior to entry into the nursing program and have a minimum grade of C+.
- BIOL202, BIOL203, BIOL201 and CHEM105

Mathematics: 4 credits
- MATH100 (or one year of high school algebra earning a grade of C or better in the last 7 years prior to admission to the PN program)

Social Science: 6-7 credits
- POLI240 or POLI110, and PSYC120

Humanities: 3 credits
- PHIL222

Computer Literacy: 0.5 credits
- NURS121B, CMIS101, CMIS120, or competency testing

Program Requirements (PN Level)

All NURS courses require a grade of C+ or better. Refer to the Nursing Booklet for specifics on progression and re-entry.

Course Name	*Course #*	*Cr.*
*Dosages & Solutions for Nursing & Allied Health	AHEA106	1
Fundamentals of Nursing Care	NURS101	5
Nursing Care of the Adult Client I	NURS103	6
Nursing Care of the Adult Client II	NURS105	6
**Nutrition & Diet Therapy in Nursing	NURS111	2
Nursing Care of the Adult Client III	NURS119	5
Nursing Issues & Trends	NURS126	0.5
Nursing Care of the Childbearing Family	NURS146	3
Nursing Care of Children	NURS147	3
Pharmacology in Nursing I	NURS164	1
Pharmacology in Nursing II	NURS165	1

Program Requirements (ADN Level)

All NURS courses require a grade of C+ or better. Refer to the Nursing Booklet for specifics on progression and re-entry.

Course Name	*Course #*	*Cr.*
Advanced Nursing Care of the Adult Client	NURS253	10
Community Mental Health	NURS227	5
Nursing Care of the Childbearing Family	NURS246	3
Nursing Care of Children	NURS247	3
Leadership & Management	NURS257	3

**Requirement may also be met through competency testing.*
***This course may be taken up to two years prior to admission.*

Licensure preparation testing is required for all students each semester of the program. This comprehensive testing provides preparation for both NCLEX-PN/CAT and NCLEX-RN/CAT.

Advanced Standing

This program provides a means for the Licensed Practical Nurse (LPN), holding a valid, unencumbered license 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).

Advanced standing students entering the second rung of the ladder must meet all requirements of the practical nursing program as well as those of the associate degree program. Complete information is available in the nursing booklet. It is important for the LPN to complete the Advanced Standing Tracking List to assure timely admission into the ADN program.

Applied Science Associate

Small Business Development/Management-Residential Construction

Students who have prior residential construction coursework and/or practical experience may complete a program of study which incorporates that previous experience. This applied science degree includes residential construction, business, technical, and general education courses that may assist in transfer to a university. This degree also prepares students to start and manage a new business venture in the residential construction field.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM220

Laboratory Science: 3-4 credits
BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231.

Mathematics: 4 credits
MATH100, MATH102, MATH104, MATH120 or higher.

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, HUMN271,PHIL220,PHIL221,PHIL222,FREN120, FREN121, GERM101, GERM102, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Emergency Health Care	AHEA100	2
Legal Environment of Business	BUSN200	3
Customer Relations	BUSN251	1
Residential Construction Materials & Methods I	CNST110	3
Residential Construction Materials & Methods II	CNST111	3
Residential Construction Layout & Surveying	CNST200	3
Codes, Permits, & Inspections	CNST205	3
Blueprint Reading, Estimating & Bidding	CNST210	4
Small Business Management	MGMT235	3
Electives		6-8

Suggested Electives

Introduction to Business	BUSN135	3
Strategic Management	MGMT275	3
Principles of Marketing	MRKT233	3
Advertising	MRKT248	3

A SMALL BUSINESS DEVELOPMENT/MANAGEMENT– RESIDENTIAL CONSTRUCTION CERTIFICATE PROGRAM IS ALSO AVAILABLE.

Technical Drafting & Design

Applied Science Associate

Drafting is a graphic language used by industry to communicate ideas and plans from the creative design stage through production. This program of study uses methods of graphic communication to solve drafting and basic design-related problems. Industry requires drafters who can translate ideas, sketches and specifications into complete and accurate working plans. Students completing this program will have the skills to enter the workplace as a versatile draftsperson capable of making basic design decisions and addressing future technological advances in the drafting and design profession.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications: 3 credits
ENGL100

Oral Communications: 3 credits
COMM210 or COMM220

Laboratory Science: 3-4 credits
PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231

Mathematics: 3 credits
MATH120 *(Prerequisites: MATH100 and MATH104)*

Social Science: 4 credits
POLI110 or POLI240 and at least one of the following: SOCI111, SOCI230, SOCI235, SOCI271, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI246, PSYC120, PSYC221, PSYC223, or PSYC225.

Humanities: 4 credits
HUMN100 or HUMN200 or two of the following (courses must have different prefixes and only one may be a foreign language): ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, HUMN271, SPAN130, or SPAN131.

Computer Literacy: 3 credits
CMIS115

Program Requirements

Course Name	*Course #*	*Cr.*
Basic Machine Operation	INDS220	3
Basic Fluid Power	INDS253	3
Manufacturing Processes	INDS260	2
Technical Drafting I	TDSN100	4
Industrial Communication	TDSN103	2
Reading Engineering Drawings	TDSN105	2
Descriptive Geometry	TDSN110	3
Geometric Dimensioning & Tolerancing	TDSN125	2
Tool and Die Design I*	TDSN135	2
Tool and Die Design II*	TDSN136	2
Product Design	TDSN215	3
Jig & Fixture Design	TDSN230	3
Introduction to CAD	TDSN250	4
Advanced CAD	TDSN251	4

**Students may substitute the Plastic Mold Design series (TDSN140, TDSN141, and TDSN142) for the two Tool and Die Design theory courses (TDSN135 and TDSN136)*

A TECHNICAL DRAFTING CERTIFICATE PROGRAM IS ALSO AVAILABLE.

Automotive Maintenance Technology

Students who successfully complete this certificate program are eligible to obtain entry-level jobs as automotive technicians. Many of the courses are applicable toward the Small Business Development/Management-Automotive Technology certificate and the Automotive Technology Applied Science Associate degree programs.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Advanced Automotive Electrical	AUTO113	2
Industrial First Aid	INDS155B	0.5
Fundamentals of Welding	WELD101	3

Students must also choose three of the following five specializations:

Automotive Brake Systems	AUTO107	4
and Automotive Brake Systems Field Experience	AUTO292B	4
Automotive Suspension & Steering	AUTO109	4
and Automotive Suspension & Steering Field Experience	AUTO292C	4
Automotive Electrical & Electronic Systems	AUTO203	4
and Automotive Electrical & Electronic Systems Field Experience	AUTO292D	4
Automotive Engine Performance	AUTO205	4
and Automotive Engine Performance Field Experience	AUTO292E	4
Automotive Heating & Air Conditioning	AUTO262	4
and Automotive Heating & Air Conditioning Field Experience	AUTO292F	4

AN AUTOMOTIVE TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE AND JOB TRAINING CERTIFICATES IN EACH OF THE AUTOMOTIVE AREAS ARE ALSO AVAILABLE.

Computer Support

This certificate program provides students training in the installation, maintenance, and upgrading of hardware, software and peripherals used with computer systems. The content of this certificate program helps students to prepare for COMPTIA A+ Certification, and many of the credits are applicable toward the Computer Support Technology associate degree.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Customer Relations	BUSN251	1
Introduction to Computer Information Systems	CMIS115	3
Introduction to Programming & Logic	CMIS130	4
Concepts of Electricity	CSTC100	3
Electronic Fabrication	CSTC105	1
Introduction to Networking	CSTC127	3
Digital Logic	CSTC130	3
Computer Maintenance I	CSTC171	3
Computer Maintenance II	CSTC172	3
Freshman English I*	ENGL100	3
OR Technical Writing for Business and Industry	INDS140	3
Elementary Algebra	MATH100	4

**This alternate course is recommended for students with adequate background who are considering the associate degree.*

A COMPUTER SUPPORT TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE IS ALSO AVAILABLE.

Cosmetology

This Michigan Department of Commerce Division of Licensing and Regulations-approved program prepares students to take the State Licensing Board Examination. More than 900 hours are spent in lab work and 1,500 attendance hours are required. Admission is granted for fall semester only. To begin second-year course work, students must have passed all written tests with a minimum of 75 percent and completed at least 690 clock hours. Departmental approval is required for any exceptions. This program is offered in 18-week semesters with 9-week courses.

Program Requirements

Course Name	*Course #*	*Cr.*
Customer Relations*	BUSN251	1
Computer Literacy**	CMIS101	3
Introduction to Cosmetology	COSM100	3
Beginning Hairstyling	COSM101	3
Beginning Hair Cutting & Permanent Waving	COSM102	3
Beginning Hair Coloring & Professional Development	COSM103	3
Introduction to Cosmetology Lab	COSM110	4
Beginning Hairstyling Lab	COSM111	4
Beginning Hair Cutting & Permanent Waving Lab	COSM112	4
Beginning Hair Coloring & Professional Development Lab	COSM113	4
Advanced Hairstyling	COSM200	3
Advanced Hair Coloring & Permanent Waving	COSM201	3
Advanced Hairstyling II	COSM202	3
Salon Management & Board Review	COSM203	3
Advanced Hairstyling Lab	COSM210	5
Advanced Hair Coloring & Permanent Waving Lab	COSM211	5
Advanced Hairstyling II Lab	COSM212	5
Salon Management & Board Review Lab	COSM213	5

**BUSN185, COMM210, COMM220, or ENGL212 may be substituted.*
***This requirement may also be met through competency testing.*

A COSMETOLOGY MANAGEMENT ASSOCIATE OF APPLIED SCIENCE DEGREE 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 employment guidelines and provides students with communications course work — a necessity in today's corrections environment. Course work is transferable to most colleges and universities offering degrees in corrections.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Speech	COMM210	3
OR Interpersonal Communication	COMM220	3
Introduction to Criminal Justice	CRIM100	3
Introduction to Corrections	CRIM110	3
Corrections Institutions/Facilities	CRIM120	3
Communication in Criminal Justice	CRIM136	3
Legal Issues in Corrections	CRIM220	3
Client Relations in Corrections	CRIM250	3
Client Growth and Development	CRIM260	3
Freshman English I	ENGL100	3
Freshman English II	ENGL101	3
Introduction to Social Science I	POLI110	4
OR American Political System	POLI240	3

CRIMINAL JUSTICE AND CRIMINAL JUSTICE — CORRECTIONS ASSOCIATE OF APPLIED SCIENCE DEGREES AND A CORRECTIONS OFFICER JOB TRAINING CERTIFICATE ARE ALSO AVAILABLE.

Electronics Technology

This certificate program stresses the fundamentals for understanding and analyzing electronic devices. Many of the credits earned in this program are applicable toward the Electronics Technology associate degree.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Customer Relations	BUSN251	1
Introduction to College Writing II	DVED171	2
OR Freshman English I*	ENGL100	3
DC Electronics	ELEC111	3
AC Electronics	ELEC112	3
Semiconductors & Instrumentation	ELEC115	3
Digital Logic	CSTC130	3
Electronic Circuits	ELEC210	3
Digital Electronics	ELEC230	3
Microprocessors	ELEC240	3
Industrial Electrical Maintenance I	ELEC251	2
Applied Algebra	MATH110	2
OR Elementary Algebra*	MATH100	4
Electronics Mathematics	MATH114	4
OR Trigonometry	MATH120	3

**These alternate courses are recommended for students with adequate background who are considering the associate degree.*

AN ELECTRONICS TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE IS ALSO AVAILABLE.

Entrepreneurship

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

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Business Mathematics	BUSN160	3
Legal Environment of Business	BUSN200	3
Customer Relations	BUSN251	1
International Business	BUSN260	3
Introduction to Computer Information Systems	CMIS115	3
Microsoft Outlook I	CMIS153	1
Microcomputer Applications	CMIS175	4
OR all of the following:		
Microsoft Word III	CMIS285	2
Microsoft Excel III	CMIS286	2
Microsoft Access III	CMIS287	2
Microsoft PowerPoint III	CMIS288	2
Small Business Management	MGMT235	3
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3
Elective		2

Information Processing Assistant

This program provides a background in office administration and computer productivity tools for initial employment in the information processing field.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Employability Skills	BUSN141	3
Business Mathematics	BUSN160	3
Business Communications I	BUSN180	3
Customer Relations	BUSN251	1
Ten-Key Numeric Entry	CMIS104	1
Introduction to Computer Information Systems	CMIS115	3
Input Technologies	CMIS146	2
Microsoft Outlook I	CMIS153	1
Microcomputer Applications	CMIS175	4
OR all of the following:		
Microsoft Word III	CMIS285	2
Microsoft Excel III	CMIS286	2
Microsoft Access III	CMIS287	2
Microsoft PowerPoint III	CMIS288	2
Office Administration	CMIS270	3
Document Production III	CMIS284	2
Electives		4

Suggested Electives

Introduction to Business	BUSN135	3
Handheld Computer Productivity	CMIS147	1
Project Management	CMIS151	3
PDF Publishing	CMIS163	2
Microsoft Publisher I	CMIS176	1
Microsoft Publisher II	CMIS280	2
Field Experience	CMIS290	3
Organizational Behavior	MGMT250	3

AN INFORMATION SYSTEMS ASSOCIATE OF APPLIED SCIENCE DEGREE IS ALSO AVAILABLE.

Integrated Manufacturing Technology

Students completing the Integrated Manufacturing Technology certificate program will be prepared for advanced manufacturing positions.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Keyboarding	CMIS100*	1
Computer Literacy	CMIS101*	3
Microsoft Excel I	CMIS157*	1
Interpersonal Communication	COMM220	3
DC Electronics	ELEC111	3
AC Electronics	ELEC112	3
Semiconductors & Instrumentation	ELEC115	3
Industrial Electrical Maintenance I	ELEC251	2
Industrial Electrical Maintenance II	ELEC252	2
Industrial Control Systems-Siemens	ELEC263	4
Technical Writing for Business & Industry	INDS140	3
Industrial Safety	INDS155A	1.5
Basic Fluid Power	INDS253	3
Advanced Pneumatics	INDS255	3
Industrial Problem Solving	INDS265	2
Industrial Quality Control	INDS270	3
Basics of Vacuum Technology	INDS275	3
Applied Algebra	MATH110*	2
Electronics Mathematics	MATH114	4
Physical Science	PHYS101	4

**These program requirements may be waived by competency testing.*

AN INTEGRATED MANUFACTURING TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE IS ALSO AVAILABLE.

Liberal Studies

This certificate is designed for students who plan to transfer without completing a degree at MCC. A counselor should be consulted to create a transfer plan to a specific four-year institution to which the student will transfer.

Some prerequisite courses may apply to this program.

Program Requirements

Written Communications: 6 credits

ENGL100 & ENGL101

Mathematics and Science: 8 credits

Courses must be taken from more than one subject area and must include a laboratory science: BIOL100, BIOL105, BIOL110, BIOL115, BIOL121, BIOL122, BIOL201, BIOL202, BIOL203, BIOL208, CHEM105, CHEM220, CHEM221, CHEM251, CHEM252, MATH104, MATH120, MATH159, MATH190, MATH250, MATH251, MATH252, MATH290, PHYS101, PHYS230, or PHYS231.

Social Science: 8 credits

Courses must be taken from more than one subject area: ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, POLI110, POLI240, POLI246, PSYC120, PSYC221, PSYC223, PSYC225 SOCI111, SOCI230, SOCI235, or SOCI271.

Humanities: 8 credits

Courses must be taken from more than one subject area except if taking HUMN200 and HUMN201: HUMN100, HUMN200, HUMN201, HUMN271, ARTS120, ARTS225, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL230, ENGL240, ENGL265, ENGL270, ENGL280, ENGL290, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, SPAN130, or SPAN131.

Machine Tool Operation

Students who successfully complete this certificate 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.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Introduction to College Writing II	DVED171	2
OR Freshman English I*	ENGL100	3
Machine Tool Theory	INDS100	2
Basic CNC Operation	INDS102	2
Metallurgy and Heat Treatment	INDS130	2
Basic Machine Operation	INDS220	3
Advanced Machine Operation	INDS221	3
Basic Fluid Power	INDS253	3
Manufacturing Processes	INDS260	2
Industrial Quality Control	INDS270	3
Applied Algebra	MATH110	2
OR Elementary Algebra*	MATH100	4
Applied Geometry	MATH111	2
OR Intermediate Algebra*	MATH104	4
Reading Engineering Drawings	TDSN105	2
Layout and Precision Measurement	TDSN106	2
Fundamentals of Welding	WELD101	3

**These alternate courses are recommended for students with adequate background who are considering the associate degree.*

AN ASSOCIATE OF APPLIED SCIENCE DEGREE IN INDUSTRIAL TECHNOLOGY IS ALSO AVAILABLE.

Medical Assistant

A Medical Assistant is a multi-skilled allied health care professional who performs administrative and clinical duties under the supervision of a licensed health care practitioner. A student completing this certificate program is qualified to work as a medical assistant in a variety of settings including medical offices, outpatient facilities, health maintenance organizations, health departments, business and industry and insurance companies. Montcalm Community College's Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs. Minimum COMPASS or ACT test scores are required for math, reading and writing.

Progression in the medical assistant program is determined academically by the minimum grade of a C+ (78 percent) in each medical assistant course (AHEA109, AHEA111, AHEA112, AHEA113, AHEA114 and AHEA115) and can be repeated only once. An attempt is counted if a student fails or withdraws from the course. In all other required courses, students must earn a minimum grade of C.

All courses must be completed within one to two years to facilitate the student's success in the externship setting and the national certification examination. The instructors have determined the following as critical areas and students should be conscious of the time frames. If the time limit has been exceeded (one year for AHEA111, AHEA112 and AHEA115; two years for AHEA100, AHEA109, AHEA113 and AHEA114), a mandatory validation of knowledge and skills is necessary prior to applying for the externship (AHEA126). Contact the program director to make the necessary arrangements. Students must also complete a criminal background check (CBC) before enrolling in AHEA109.

Felony/Drug Conviction Disclosure: Previous conviction of a felony may prevent an applicant from being eligible for the certification exam given by the American Association of Medical Assistants. "Individuals who have been found guilty of a felony or pleaded guilty to a felony are not eligible to take the Certified Medical Assistants exam. However, the certifying board may grant a waiver based upon mitigating circumstances, which may include, but need not be limited to the following:

- The age at which the crime was committed
- The circumstances surrounding the crime
- The nature of the crime committed
- The length of time since the conviction
- The individual's criminal history since the conviction
- The individual's current employment references
- The individual's character references
- Other evidence demonstrating the ability of the individual to perform the professional responsibilities competently, and evidence that the individual does not pose a threat to the health or safety of patients."

Some prerequisite courses or testing may apply to this program. Immunizations, a health certification form and health physical examination are additional requirements of the program and will be addressed in AHEA109.

Any student who has a serious illness, injury or pregnancy while in the program will be required to obtain a doctor's written release.

Program Requirements

Course Name	*Course #*	*Cr.*
Computer Literacy*	CMIS101	3
Business Communications I	BUSN180	3
Medical Terminology	AHEA215	3
Emergency Health Care	AHEA100	2
Foundations of Medical Assisting	AHEA109	2
Clinical Procedures	AHEA111	4
Medical Laboratory Procedures	AHEA112	4
Medical Insurance and Coding	AHEA113	2.5
Medical Administrative Procedures	AHEA114	3
Pharmacology in Allied Health	AHEA115	3
Body Systems and Disease	AHEA116	3
OR Intro to Anatomy and Physiology**	BIOL105	4
Externship***	AHEA126	6

**This requirement may also be met through competency testing.*
***BIOL105 is recommended for those with adequate background who are considering an associate degree.*
****Instructor approval is necessary for enrollment.*

Practical Nursing

A student completing the certificate program becomes eligible to apply for the National Council Licensing Examination/Computer Adaptive Testing for licensure as a Licensed Practical Nurse (LPN).

The On-Campus Practical Nursing (PN) program is a three-semester program once prerequisite courses have been completed and begins in August.

The Off-Campus Practical Nursing (PN) program is offered in Gratiot County and is a four-semester program that begins in spring semester (January) once prerequisite courses have been completed.

Detailed information about the nursing programs is in the nursing booklet that is available from Student Services or online at www.montcalm.edu/programs/viewprograms.asp. Look for the Nursing Booklet link at the top of the Nursing program page. Updates to the nursing booklet supersede information contained in the catalog. It includes the Tracking List Request Form that determines admission.

Admission into the nursing programs is dependent upon available space and is not guaranteed immediately upon acceptance.

Students must complete a criminal background check (CBC) when making application to the tracking list and again at the time of acceptance to the nursing program.

Legal Consideration (Felony Statement): Previous treatment for substance abuse or conviction of a misdemeanor punishable by imprisonment for a maximum term of two years may prevent an applicant from taking the NCLEX-PN/CAT or NCLEX-RN/CAT. Individuals with a conviction history must submit to the Board of Nursing a written explanation of the circumstances for which subsequent determination should be made regarding licensure eligibility in the State of Michigan.

Program Prerequisites

COMPASS testing is required for reading and math with minimum COMPASS reading score of 82 and minimum COMPASS Pre-algebra score of 44.

These courses have a grade requirement of C or better.

Course Name	*Course #*	*Cr.*
Freshman English I	ENGL100	3
Elementary Algebra (or one year of high school algebra earning a grade of C or better within the last 7 years)	MATH100	4

Science Courses: All science courses must be taken within 7 years prior to entry into the nursing program and have a minimum grade of C+.

Anatomy & Physiology I	BIOL202	4
Anatomy & Physiology II	BIOL203	4
Introduction to Computer Concepts in Nursing	NURS121B	0.5
OR Computer Literacy	CMIS101	3
OR Computer Applications in Health Care	CMIS120	3
OR competency testing		

Program Requirements

The following courses require a grade of C+ or better. Refer to the Nursing Booklet for specifics on progression and re-entry.

Course Name	*Course #*	*Cr.*
**Dosages and Solutions for Nursing & Allied Health	AHEA106	1
Fundamentals of Nursing Care	NURS101	5
Nursing Care of the Adult Client I	NURS103	6
Nursing Care of the Adult Client II	NURS105	6
*Nutrition & Diet Therapy in Nursing	NURS111	2
Nursing Care of the Adult Client III	NURS119	5
*Introduction to Communication Concepts in Nursing	NURS121A	1.5
Nursing Issues & Trends	NURS126	0.5
Nursing Care of the Childbearing Family	NURS146	3
Nursing Care of Children	NURS147	3
Pharmacology in Nursing I	NURS164	1
Pharmacology in Nursing II	NURS165	1

**These courses may be taken up to two years prior to admission to the nursing program.*
***This requirement may also be met through competency testing.*

Licensure preparation testing is required for all students each semester of the program. This comprehensive testing package provides preparation for the NCLEX-PN/CAT.

AN ASSOCIATE OF APPLIED SCIENCE IN NURSING IS ALSO AVAILABLE.

Small Business Development/Management-Automotive Technology

Students who have prior automotive technology course work and/or practical experience may complete a program of study which incorporates that previous experience with selected business and technical courses to complete a certificate program. This program prepares students to start and manage a new business venture in the automotive technology field.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Advanced Automotive Electrical	AUTO113	2
Legal Environment of Business	BUSN200	3
Customer Relations	BUSN251	1
Computer Literacy	CMIS101	3
Technical Writing for Business & Industry	INDS140	3
Industrial First Aid	INDS155B	0.5
Small Business Management	MGMT235	3
Fundamentals of Welding	WELD101	3

Students must also choose two of the following five specializations:

Automotive Brake Systems and Automotive Brake Systems Field Experience	AUTO107 AUTO292B	4 4
Automotive Suspension & Steering and Automotive Suspension & Steering Field Experience	AUTO109 AUTO292C	4 4
Automotive Electrical & Electronic Systems and Automotive Electrical & Electronic Systems Field Experience	AUTO203 AUTO292D	4 4
Automotive Engine Performance and Automotive Engine Performance Field Experience	AUTO205 AUTO292E	4 4
Automotive Heating & Air Conditioning and Automotive Heating & Air Conditioning Field Experience	AUTO262 AUTO292F	4 4

AN ASSOCIATE OF APPLIED SCIENCE DEGREE IN AUTOMOTIVE TECHNOLOGY IS ALSO AVAILABLE.

Small Business Development/Management-Residential Construction

Students who have prior residential construction coursework and/or practical experience may complete a program of study which incorporates that previous experience with selected business and technical courses to complete a certificate program. This program prepares students to start and manage a new business venture in the residential construction field.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Emergency Health Care	AHEA100	2
Legal Environment of Business	BUSN200	3
Customer Relations	BUSN251	1
Introduction to Computer Information Systems	CMIS115	3
Residential Construction Materials & Methods I	CNST110	3
Residential Construction Materials & Methods II	CNST111	3
Residential Construction Layout & Surveying	CNST200	3
Codes, Permits, & Inspections	CNST205	3
Blueprint Reading, Estimating & Bidding	CNST210	4
Small Business Management	MGMT235	3

AN ASSOCIATE OF APPLIED SCIENCE DEGREE IN SMALL BUSINESS DEVELOPMENT/MANAGEMENT — RESIDENTIAL CONSTRUCTION IS ALSO AVAILABLE.

Technical Drafting

This certificate program is designed to help prepare students for their first job as a detailer or beginning drafter and is considered a first step toward an associate degree.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Customer Relations	BUSN251	1
Introduction to Computer Information Systems	CMIS115	3
Basic Machine Operation	INDS220	3
Basic Fluid Power	INDS253	3
Manufacturing Processes	INDS260	2
Applied Algebra	MATH110	2
OR Elementary Algebra*	MATH100	4
Applied Geometry	MATH111	2
OR Intermediate Algebra*	MATH104	4
Technical Drafting I	TDSN100	4
Industrial Communication	TDSN103	2
Reading Engineering Drawings	TDSN105	2
Introduction to CAD	TDSN250	4
Advanced CAD	TDSN251	4

**These alternate courses are recommended for students with adequate background who are considering the associate degree.*

A TECHNICAL DRAFTING & DESIGN ASSOCIATE OF APPLIED SCIENCE DEGREE IS ALSO AVAILABLE.

Welding Technology

This certificate 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*. Additional welding courses are available to develop further skills.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	*Course #*	*Cr.*
Emergency Health Care	AHEA100	2
Metallurgy and Heat Treatment	INDS130	2
Basic Machine Operations	INDS220	3
Basic Fluid Power	INDS253	3
Applied Algebra	MATH110	2
OR Elementary Algebra*	MATH100	4
Reading Engineering Drawings	TDSN105	2
Layout and Precision Measurement	TDSN106	2
Fundamentals of Welding	WELD101	3
Welding Processes I	WELD111	3
Welding Processes II	WELD113	3
Welding Processes III	WELD131	3
Welding Processes IV	WELD133	3

**The college does not certify welders.*
***This alternate course is recommended for students with adequate background who are considering the associate degree.*

AN ASSOCIATE OF APPLIED SCIENCE DEGREE IN INDUSTRIAL TECHNOLOGY IS ALSO AVAILABLE.

Apprenticeship Training

Students 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 one to three courses of apprenticeship-related instruction. A competency examination or official transcripts may result in a waiver of a required course. The employer establishes entrance requirements that are in accordance with the Bureau of Apprenticeship and Training standards. Continuation in the job training certificate depends on employment status and achievement levels. The sample schedule of related instruction below is for apprentice tool-and-die makers. The actual requirements may vary with the training agreement. Instruction for machinists, electricians, plastic mold designers, mold-and-die makers and welders are also available.

Requirements

Course Name	*Course #*	*Cr.*
Computer Literacy	CMIS101	3
OR Introduction to Windows	CMIS102	1
Machine Tool Theory	INDS100	2
Basic CNC Operation	INDS102	2
Metallurgy & Heat Treatment	INDS130	2
Industrial Safety	INDS155A	1.5
Industrial First Aid	INDS155B	0.5
Industrial Quality Control	INDS270	3
Applied Algebra	MATH110	2
Applied Geometry	MATH111	2
Applied Right Angle Trigonometry	MATH112	2
Applied Oblique Angle Trigonometry	MATH113	2
Industrial Communication	TDSN103	2
Reading Engineering Drawings	TDSN105	2
Layout & Precision Measurement	TDSN106	2
Tool and Die Design I	TDSN135	2
Tool and Die Design II	TDSN136	2
Introduction to CAD	TDSN250	4
Welding Processes I	WELD111	3

Automotive Brake Systems

Students have the option of choosing among several automotive specialty areas or choose to complete more than one area. Each area contains an automotive servicing and field experience component to gain entry-level skills.

Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Automotive Brake Systems	AUTO107	4
Automotive Brake Systems Field Experience	AUTO292B	4

Automotive Electrical & Electronic Systems

Students have the option of choosing among several automotive specialty areas or choose to complete more than one area. Each area contains an automotive servicing and field experience component to gain entry-level skills.

Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Advanced Automotive Electrical	AUTO113	2
Automotive Electrical & Electronic Systems	AUTO203	4
Automotive Electrical & Electronic Systems Field Experience	AUTO292D	4

Automotive Engine Performance

Students have the option of choosing among several automotive specialty areas or choose to complete more than one area. Each area contains an automotive servicing and field experience component to gain entry-level skills.

Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Advanced Automotive Electrical	AUTO113	2
Automotive Electrical & Electronic Systems	AUTO203	4
Automotive Electrical & Electronic Systems Field Experience	AUTO292D	4
Automotive Engine Performance	AUTO205	4
Automotive Engine Performance Field Experience	AUTO292E	4

Automotive Heating & Air Conditioning

Students have the option of choosing among several automotive specialty areas or choose to complete more than one area. Each area contains an automotive servicing and field experience component to gain entry-level skills.

Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Advanced Automotive Electrical	AUTO113	2
Automotive Heating & Air Conditioning	AUTO262	4
Automotive Heating & Air Conditioning Field Experience	AUTO292F	4

Automotive Service

Students have the option of choosing among several automotive specialty areas or choose to complete more than one area. Each area contains an automotive servicing and field experience component to gain entry-level skills.

Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Automotive Service Field Experience	AUTO292A	4

Automotive Suspension & Steering

Students have the option of choosing among several automotive specialty areas or choose to complete more than one area. Each area contains an automotive servicing and field experience component to gain entry-level skills.

Requirements

Course Name	*Course #*	*Cr.*
Automotive Service	AUTO103	1
Basic Automotive Electrical	AUTO112	2
Automotive Suspension & Steering	AUTO109	4
Automotive Suspension & Steering Field Experience	AUTO292C	4

Builder's Pre-licensure Preparation

This job training certificate meets the State of Michigan's pre-licensure requirement for the Residential Builder's License Examination. Students who satisfactorily complete this program will be eligible to take the state licensing exam.

Requirements

Course Name	*Course #*	*Cr.*
Legal Environment of Business	BUSN200	3
Residential Construction Materials & Methods I	CNST110	3
Residential Construction Materials & Methods II	CNST111	3
Residential Construction Layout and Surveying	CNST200	3
Codes, Permits, and Inspections	CNST205	3
Blueprint Reading, Estimating &Bidding	CNST210	4
Small Business Management	MGMT235	3

Child Development Associate

The Child Development Associate (CDA) credential is conferred by the Council for Early Childhood Recognition (CECR). To be awarded this credential, students must complete a planned set of activities including work experience, supervised training and related instruction. MCC does not offer this credential; however, students who complete the ECDV courses listed below will meet the related instruction required by CERC. To learn all that is necessary to apply for the CDA credential, students should enroll in ECDV100 Introduction to CDA.

Requirements

Course Name	*Course #*	*Cr.*
Child Development: Infants & Toddlers	ECDV110	3
Child Development: Preschoolers	ECDV120	3
Infant/Toddler Curriculum	ECDV131	3
Preschool Curriculum	ECDV135	3
Administration of Early Childhood Programs	ECDV150	3

AN EARLY CHILDHOOD DEVELOPMENT ASSOCIATE OF APPLIED SCIENCE DEGREE IS ALSO AVAILABLE.

CIS Job Readiness

This job training certificate is tailored for students entering or retooling for today's workplace and needing up-to-date basic computer information skills.

Requirements

Course Name	*Course #*	*Cr.*
Employability Skills	BUSN141	3
Business Communications I	BUSN180	3
Keyboarding	CMIS100	1
Introduction to Windows	CMIS102	1
Exploring the Internet	CMIS110	1
Input Technologies	CMIS146	2
Handheld Computer Productivity	CMIS147	1
Microsoft Word I	CMIS156	1
Microsoft Excel I	CMIS157	1

Corrections Officer Training

This 15-credit-hour job training certificate satisfies the Michigan Corrections Officer Training Council (MCOTC) educational requirement for corrections officers. Students must achieve a minimum 2.0 grade in each course to receive certification of successful completion from MCC. To be considered for employment by Michigan Department of Corrections, students must have a high school diploma or GED and pass a written Civil Service exam, a physical fitness exam, a personal interview, a background investigation, and a drug screening. The educational requirement may be met either before or within 18 months of employment by the MDOC.

Requirements

Course Name	*Course #*	*Cr.*
Introduction to Corrections	CRIM110	3
Corrections Institutions/Facilities	CRIM120	3
Legal Issues in Corrections	CRIM220	3
Client Relations in Corrections	CRIM250	3
Client Growth and Development	CRIM260	3

CRIMINAL JUSTICE AND CRIMINAL JUSTICE — CORRECTIONS ASSOCIATE OF APPLIED SCIENCE DEGREES AND A CRIMINAL JUSTICE — CORRECTIONS CERTIFICATE ARE ALSO AVAILABLE.

Digital Publishing & Presentation

This job training certificate is designed for students interested in desktop publishing or digital and web-based presentations.

Requirements

Course Name	*Course #*	*Cr.*
Two-Dimensional Design & Color	ARTS140	3
Introduction to Windows	CMIS102	1
Microsoft MovieMaker	CMIS111	1
Microsoft Producer	CMIS113	2
Digital Images & Editing	CMIS161	3
Digital Illustration	CMIS162	3
PDF Publishing	CMIS163	2
Microsoft Publisher II	CMIS280	2
Microsoft PowerPoint III	CMIS288	2

Emergency Medical Technician

Students will learn the fundamentals of pre-hospital emergency medicine, including critical interventions for ill and injured patients. Basic anatomy and physiology, patient assessment, bandaging, splinting, oxygen administration and how emergency medical services systems function will be covered.

The following course work prepares successful students to take the National Registry examination for licensure as an Emergency Medical Technician. The Emergency Medical Technician course includes lecture, lab, and clinical time as approved by the Michigan Department of Community Health. Successful students are eligible to take the National Registry exam for EMT-Basic and may receive licensure. The job training can be completed by taking AHEA200 in one semester or by taking AHEA200A and AHEA200B in a two-semester sequence.

Students must complete a criminal background check (CBC) to enroll in this program.

Legal Consideration (Felony Statement): Previous treatment for substance abuse or conviction of a misdemeanor punishable by imprisonment for a maximum term of two years may prevent an applicant from taking the National Registry exam. Individuals with a conviction history must submit a written explanation of the circumstances for which subsequent determination should be made regarding licensure eligibility in the State of Michigan.

Requirements

Course Name	*Course #*	*Cr.*
Emergency Medical Technician	AHEA200	9.5
OR Medical First Responder*	AHEA200A	3.5
and MFR-EMT Articulation	AHEA200B	6

**Students successfully completing this first course of the two-semester sequence will earn a Healthcare Provider CPR card and, if successful on the National Registry exam, may obtain a Medical First Responder license from the Michigan Department of Community Health. A criminal history background check is required prior to enrollment.*

Entrepreneurship

This job training certificate program will give the student many of the tools necessary to start and run a new business. The courses focus on steps to start a new business, techniques for managing the business, skills for dealing with customers and proper bookkeeping techniques for a small business.

Requirements

Course Name	*Course #*	*Cr.*
Accounting for Small Business	ACCT105	3
OR Principles of Accounting I	ACCT115	4
Introduction to Business	BUSN135	3
Legal Environment of Business	BUSN200	3
Customer Relations	BUSN251	1
Small Business Management	MGMT235	3

Input Productivity

This job training certificate prepares students for fields requiring computer-based data entry.

Requirements

Course Name	*Course #*	*Cr.*
Computer Literacy	CMIS101	3
Ten-Key Numeric Entry	CMIS104	1
Input Technologies	CMIS146	2
Handheld Computer Productivity	CMIS147	1
PDF Publishing	CMIS163	2
Document Production III	CMIS284	2

Long-Term-Care Nurse Assistant

Classroom lecture, simulated labs and supervised clinical experience in long-term care facilities are combined to provide the basic nursing skills and knowledge necessary for the student to give patient care appropriately and safely. Upon successful completion students are eligible for employment in health care facilities and to apply for the State of Michigan Competency test. This course can also be used to articulate into the nursing program at Montcalm Community College.

A felony or an attempt to commit a felony within the last 15 years or a misdemeanor involving abuse, neglect, assault, battery or criminal sexual conduct or involving fraud or theft against a vulnerable adult within the last 10 years may prevent students from registering and/or completing this course. A criminal history check will be conducted before students are allowed to enroll in this course.

Requirement

Course Name	*Course #*	*Cr.*
Long-Term-Care Nurse Assistant	AHEA103	3.5

Nurse Assistant

Classroom lecture, simulated labs and supervised clinical experience in acute, long-term and home care facilities are combined to provide the basic nursing skills and knowledge necessary for the student to give patient care appropriately and safely. Upon successful completion students are eligible for employment in acute, long-term or home care facilities and to apply for the State of Michigan Competency test. This course can also be used to articulate into the nursing program at Montcalm Community College.

A felony or an attempt to commit a felony within the last 15 years or a misdemeanor involving abuse, neglect, assault, battery or criminal sexual conduct or involving fraud or theft against a vulnerable adult within the last 10 years may prevent students from registering and/or completing this course. A criminal history check will be conducted before students are allowed to enroll in this course.

Requirement

Course Name	*Course #*	*Cr.*
Nurse Assistant	AHEA105	5

Office Applications

This one-semester job training certificate is for Microsoft Office users who wish to upgrade or update their Office Suite skills.

Requirements

Course Name	*Course #*	*Cr.*
Input Technologies	CMIS146	2
Microsoft Outlook I	CMIS153	1
Microsoft Publisher II	CMIS280	2
Microsoft Word III	CMIS285	2
Microsoft Excel III	CMIS286	2
Microsoft Access III	CMIS287	2
Microsoft PowerPoint III	CMIS288	2

Professional Studies

This job training certificate is designed for returning office professionals who wish to update or complement their existing skills.

Requirements

Course Name	*Course #*	*Cr.*
Input Technologies	CMIS146	2
Electives *(Must be selected from the list below)*		13

Suggested Electives

Employability Skills	BUSN141	3
Customer Relations	BUSN251	1
Business Communications I	BUSN180	3
Microsoft MovieMaker	CMIS111	1
Microsoft InfoPath	CMIS112	1
Microsoft Producer	CMIS113	2
Handheld Computer Productivity	CMIS147	1
Project Management	CMIS151	3
Digital Images and Editing	CMIS161	3
Digital Illustration	CMIS162	3
PDF Publishing	CMIS163	2
Advanced Microcomputer Applications	CMIS260	4
Microsoft Publisher II	CMIS280	2
Microsoft Word III	CMIS285	2
Microsoft Excel III	CMIS286	2
Microsoft Access III	CMIS287	2
Microsoft PowerPoint III	CMIS288	2
Speech	COMM210	3

Residential Construction

With this job training certificate, graduates will be employable as construction workers on residential building crews.

Requirements

Course Name	*Course #*	*Cr.*
Emergency Health Care	AHEA100	2
Residential Construction Materials & Methods I	CNST110	3
Residential Construction Materials & Methods II	CNST111	3
Codes, Permits, and Inspections	CNST205	3
Transition to Algebra	MATH075	2
OR Elementary Algebra	MATH100	4

Retail

This 10-credit-hour job training certificate program will give the student the tools necessary to obtain an entry-level job in the retail industry. The courses focus on skills needed to obtain employment, skills for dealing with customers and the retailing industry.

Requirements

Course Name	*Course #*	*Cr.*
Employability Skills	BUSN141	3
Customer Relations	BUSN251	1
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3

Students will also be required to take DVED160 (Arithmetic Review I), or satisfy this requirement by earning 24 or greater on the COMPASS Pre-Algebra test. WorkKeys™ equivalents would also be acceptable.

Retail Management

This 16-credit-hour job training certificate program will give the student many of the tools necessary to obtain an entry-level management position in the retail industry. The courses focus on skills needed to obtain employment, effective tactics for dealing with employees, skills for dealing with customers, the nature of business and the retail industry.

Requirements

Course Name	*Course #*	*Cr.*
Introduction to Business	BUSN135	3
Employability Skills	BUSN141	3
Customer Relations	BUSN251	1
Principles of Marketing	MRKT233	3
Retailing	MRKT234	3
Organizational Behavior	MGMT250	3

Students will also be required to take DVED160 (Arithmetic Review I), or satisfy this requirement by earning 24 or greater on the COMPASS Pre-Algebra test. WorkKeys™ equivalents would also be acceptable.

Supervision

This 16-credit-hour job training certificate program will give the student the tools necessary to obtain an entry-level position in supervision. The courses focus on skills needed to obtain employment, effective tactics for dealing with employees, skills for dealing with customers, the nature of business and effective management and leadership techniques.

Requirements

Course Name	*Course #*	*Cr.*
Introduction to Business	BUSN135	3
Employability Skills	BUSN141	3
Customer Relations	BUSN251	1
Human Resource Management	MGMT245	3
Concepts of Management	MGMT237	3
Organizational Behavior	MGMT250	3

Students will also be required to take DVED160 (Arithmetic Review I), or satisfy this requirement by earning 24 or greater on the COMPASS Pre-Algebra test. WorkKeys™ equivalents would also be acceptable.

Web Design Specialist

This job training certificate is designed for students interested in web design, creation and authoring tools.

Requirements

Course Name	*Course #*	*Cr.*
Introduction to Windows	CMIS102	1
Microsoft InfoPath	CMIS112	1
Microsoft Producer	CMIS113	2
Macromedia Dreamweaver	CMIS114	3
PDF Publishing	CMIS163	2
Microsoft Access III	CMIS287	2

Course Code Index

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.

Course Descriptions

Course Descriptions

ACCOUNTING

ACCT105 Accounting for Small Business

(3 credit, 3 lecture, 0 lab) [Minimum reading test score of 82 on COMPASS or DVED152 or DVED153 and 36 on COMPASS Pre-Algebra 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) [Minimum reading test score of 82 on COMPASS or DVED152 or DVED153 and 36 on COMPASS Pre-Algebra 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.

ACCT116 Principles of Accounting II

(4 credit, 4 lecture, 0 lab) [ACCT115]

This course covers basic procedures for accumulating and using the accounting data needed for managerial planning, controlling and decision making.

ACCT212 Computerized Accounting

(4 credit, 4 lecture, 0 lab) [ACCT115]

This course covers the installation, set up, and operation of computerized accounting software and includes general ledger, accounts receivable, accounts payable, inventory, payroll, job costing and various accounting reports.

ACCT246 Tax Accounting

(3 credit, 3 lecture, 0 lab) [ACCT105 or ACCT115]

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

ALLIED HEALTH

AHEA100 Emergency Health Care

(2 credit, 2 lecture, 0 lab)

This course covers CPR and first aid for wounds, shock, burns, poisoning, etc. Students successfully completing the course qualify for American Heart Association Heartsaver CPR for adult and pediatric clients.

AHEA101 Explorations in Nursing & Health Careers

(1 credit, 1 lecture, 0 lab)

This course assists students in gaining a knowledge base of careers in health care. Throughout the course emphasis is placed on trends in the health care field and the changing roles of health care professionals. The relationship between nursing and other careers in health care are explored.

AHEA102 Basic Phlebotomy Technique

(3 credit, 1.5 lecture, 3 lab) [A background check is required.]

This course presents the theory and practical skills necessary for securing employment in the medical field as an entry level phlebotomist. Upon successful completion, students have an understanding of laboratory-related documentation, regulations, OSHA and Bloodborne Pathogen protocols. Specimen collection, labeling, processing and storage plus practice in basic venipuncture techniques using a variety of equipment and capillary blood collections is also covered.

AHEA103 Long-Term Care Nurse Assistant

(3.5 credit, 2 lecture, 3 lab) [A background check is required.]

Classroom lecture, simulated labs and supervised clinical experience in long-term care facilities are combined to provide the basic nursing skills and knowledge necessary for students to provide patient care appropriately and safely. Upon successful completion, students are eligible for employment in health care facilities and to apply for the State of Michigan Competency test. This course can also be used to articulate

into the nursing program at Montcalm Community College.

AHEA105 Nurse Assistant

(5 credit, 2 lecture, 6 lab) [A background check is required.]

Classroom lecture, simulated labs and supervised clinical experience in acute, long-term and home care facilities are combined to provide the basic nursing skills and knowledge necessary for students to provide patient care appropriately and safely. Upon successful completion, students are eligible for employment in acute, long-term or home care facilities and to apply for the State of Michigan Competency test. This course can also be used to articulate into the nursing program at Montcalm Community College.

AHEA106 Dosages & Solutions Nursing/Allied Health

(1 credit, 1 lecture, 0 lab) [MATH100 or a minimum score of 34 in COMPASS Algebra placement domain]

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

(1 credit, 1 lecture, 0 lab)

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.

AHEA109 Foundations of Medical Assisting

(2 credit, 2 lecture, 0 lab) [Background check; Pre- or corequisite: AHEA116 or BIOL105, AHEA215 and BUSN180]

In this course students learn about the role of the medical assistant in a variety of health care settings and about the history of medicine, medical practice systems and ethical and legal concepts. They also learn therapeutic communication skills, risk management procedures and basic principles and applications of psychology for the medical assisting profession.

AHEA111 Clinical Procedures

(4 credit, 2 lecture, 4 lab) [AHEA109]

This course covers the clinical skills performed by the medical assistant. Included are vital signs, positioning and draping, electrocardiography (EKG), sterilization and asepsis, administration of injections, and assisting with specialty exam procedures and minor office surgery. Essentials of disease conditions, Standard Precautions and OSHA Guidelines are also covered.

AHEA112 Medical Laboratory Procedures

(4 credit, 2 lecture, 4 lab) [AHEA109]

This course presents the theory and procedures for medical laboratory skills performed in a physician's office. Topics covered are microbiology, hematology and urinalysis. OSHA guidelines are emphasized as well as laboratory safety and quality control in the collection and testing of laboratory samples.

AHEA113 Medical Insurance & Coding

(2.5 credit, 2 lecture, 1 lab)

Insurance claim forms for a physician's office, diagnostic and procedural coding, major sources of health insurance and their billing requirements and the larger picture of health care financing are covered in this course. Students generate forms for Blue Shield, Medicare, Medicaid and commercial carriers. Emphasis is placed on the use of billing reference manuals and coding books to accurately verify insurance company rules for billing.

AHEA114 Medical Administrative Procedures

(3 credit, 2 lecture, 1 lab) [AHEA215 and CMIS101]

This course covers the theory and skills in the administrative duties and other office management tasks performed in a medical office/clinic setting. It includes clerical, bookkeeping, accounting, and other operational procedures. Students develop marketable skills in the use of computer software for the medical profession. This course is identical to CMIS220.

AHEA115 Pharmacology for Allied Health

(3 credit, 2.5 lecture, 1 lab) [AHEA109]

This course is designed for the medical assistant and other allied health students. It provides the theoretical framework for the fundamental principles and concepts of pharmacology. Topics essential to understanding drugs, legislation relating to drugs, drug classifications and actions and drug references are discussed. Basic mathematical dosage calculations and basic principles for medication administration are also included and practiced in a correlating lab session. The responsibility of the medical assistant in understanding and administering drugs and safety for the client are emphasized.

AHEA116 Body Systems and Disease

(3 credit, 3 lecture, 0 lab) [Minimum scores of 82 on COMPASS Reading Test, 71 on COMPASS Writing Test, and DVED163, MATH075, or 36 on COMPASS Pre-Algebra Test]

This course is designed for the medical assistant and other allied health students. It is a one-semester non-laboratory based course that provides an introduction to each system of the human body and the pathologic conditions associated with each system. The fundamentals of body structure and function, basic mechanisms and concepts of disease and terminology and laboratory tests related to the systems and disease processes will be examined.

AHEA126 Medical Assistant Externship

(6 credit, 1 lecture, 10 lab) *[Instructor Approval]*

This course has two parts: externship and seminar. The externship requires the student to perform 160 hours of unpaid work experience in an ambulatory health care setting under the supervision of a licensed, registered, or certified health care professional. The purpose of the externship is to provide work experience in administrative and clinical skills as well as interact with patients and other health care personnel. The 16-hour seminar reviews the externship experience and discusses job readiness, resume preparation, certification and continuing education.

AHEA130 Health Care Revenue Cycle I

(6 credit, 6 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075; AHEA215 and CMIS101. A criminal background check is required.]

This course is designed to prepare students for a career in health care admissions and billing processes. The course includes understanding the revenue cycle within health care settings and the impact of current trends within the industry. Recognition of billing and collection regulatory issues and requirements are part of the course. Customer focused communication including interviewing skills and determining coordination of benefits are explored. The role of third party reimbursement is examined including insurance companies such as Medicare, Medicaid, Blue Cross and CHAMPVA. Compliance issues, billing and coding skills are also taught. At the end of this course students sit for the Certified Healthcare Access Associate (CHAA) examination offered by the National Association of Healthcare Access Management, the only nationally recognized certification in this area. The course includes both online and classroom instruction.

AHEA140 Nutrition for Healthy Living

(2 credit, 2 lecture, 0 lab)

Nutrition for Healthy Living is an introductory course for those students who are interested in learning about nutrition for personal reasons, as well as those considering a major in health or science-related fields. It focuses on concepts that are fundamental to nutrition as well as methods to adopt healthier dietary practices. This course could be taken as an introduction to nutrition for nursing students but does not take the place of the required nutrition course in the nursing curriculum.

AHEA200 Emergency Medical Technician

(9.5 credit, 6 lecture, 7 lab) [Background check and minimum score of 82 on COMPASS Reading Test, 71 on COMPASS Writing Test, and DVED163, MATH075, or 36 on COMPASS Pre-Algebra Test]

This alternative to AHEA200A and AHEA200B allows students to complete the educational requirements for Emergency Medical Technician in one semester. The course includes orientation to pre-hospital emergency medicine, 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 emergencies, communications, emergency vehicle operation and extrication.

Students learn patient assessment, splinting and bandaging, oxygen administration, and basic and advanced airway management. Clinical rotations include ride time on ambulances and assignments to hospital emergency rooms. Students must have or earn a Professional CPR card prior to beginning clinical rotations. Upon successful completion, students are eligible to take the National Registry examination and apply for licensure as an Emergency Medical Technician (EMT) through the Michigan Department of Community Health.

AHEA200A Medical First Responders

(3.5 credit, 3 lecture, 1 lab)

This course introduces students to pre-hospital emergency medicine, including critical interventions for ill and injured patients prior to the arrival of an ambulance. Students learn basic anatomy and physiology, patient assessment, bandaging, splinting, oxygen administration, and how emergency medical services systems function. Students earn a Healthcare Provider CPR card and upon successful completion of the course may take the National Registry examination for Medical First Responder and apply for licensure through the Michigan Department of Community Health. Successful students may also progress into AHEA200B, the EMT Articulation course.

AHEA200B MFR-EMT Articulation

(6 credit, 4.75 lecture, 2.5 lab)

This course further explores critical interventions for ill and injured patients and incorporates patient transport in an ambulance. Students learn anatomy, physiology, and pathophysiology, and become proficient at patient assessment, bandaging, splinting, oxygen administration, and basic and advanced airway management. Clinical rotations include ride time on ambulances and assignments to hospital emergency rooms. Upon successful completion, students may take the National Registry examination and apply for licensure as an Emergency Medical Technician (EMT) through the Michigan Department of Community Health.

AHEA215 Medical Terminology

(3 credit, 3 lecture, 0 lab)

This course is a study of medical terminology which is designed to assist the medical secretarial, nursing and science students in mastering medical terms. With an understanding of basic terms, students are prepared to pursue additional education in the medical environment.

AHEA230 Health Care Revenue Cycle II

(6 credit, 6 lecture, 0 lab) [AHEA130]

This course is designed for students interested in a career as a patient account technician. Skills for constructing and validating various types of insurance claims are taught. Dealing with denials of payment by various insurances is also a focus of the course. Skills necessary to analyze unpaid claims and follow up and apply collection techniques are explored. At the completion of the course, students sit for the Certified Patient Account Technician (CPAT) examination from the American Association of Healthcare Administrative Management. This course includes both online and classroom instruction.

ANTHROPOLOGY

ANTH260 Cultural Anthropology

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]

This course covers different cultures, particularly preliterate 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.

ANTH265 Indian Cultures of North America

(3 credit, 3 lecture, 0 lab)

This course is designed to provide students with basic background in North American Indian life and culture from prehistoric times to the present day. It consists of an overview of the rich variety of cultures across the continent with an emphasis on comparison and contrast. Emphasis is placed on both Great Lakes and Plains cultures. Archeological sites and study of contemporary issues in areas such as health and education round out the course. Students have the opportunity to enhance their educational experience and earn additional credit by participating in optional field labs.

ARCHAEOLOGY

ARCH102 Fieldwork in Michigan Archaeology

(3 credit, 0 lecture, 4 lab)

This course provides students an introduction to the fundamentals of modern field archaeology as well as the prehistoric cultural chronology of cen-

tral Michigan. The techniques of contemporary archaeological data recovery and interpretation are emphasized throughout this course.

ARCH103 Fieldwork in Michigan Archaeology II

(3 credit, 0 lecture, 4 lab) [ARCH102]
This course is a continuation of skills developed in ARCH102. It provides students with an opportunity to continue the study of the fundamentals of modern field archaeology as well as the prehistoric cultural chronology of central Michigan. The techniques of contemporary archaeological data recovery and interpretation are emphasized throughout this course.

ARCH104 Fieldwork in Michigan Archaeology III

(3 credit, 0 lecture, 4 lab) [ARCH103]
This course is a continuation of skills developed in ARCH103. It provides students with an opportunity to continue the study of the fundamentals of modern field archaeology as well as the prehistoric cultural chronology of central Michigan. The techniques of contemporary archaeological data recovery and interpretation are emphasized throughout this course.

ARCH105 Fieldwork in Michigan Archaeology IV

(3 credit, 0 lecture, 4 lab) [ARCH104]
This course is a continuation of skills developed in ARCH104. It provides students with an opportunity to continue the study of the fundamentals of modern field archaeology as well as the prehistoric cultural chronology of central Michigan. The techniques of contemporary archaeological data recovery and interpretation are emphasized throughout this course.

ART

ARTS118 Art Materials and Methods Studio

(1 credit, 0.5 lecture, 0.5 lab)
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)
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)
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) [ARTS122]
This course further develops the drawing techniques of contour, gesture, shading and proportion as they apply to still life, the human figure, landscape and architecture. Composition and expression are also explored and students use a variety of materials to draw subjects in the studio and in the field.

ARTS124 Calligraphy

(3 credit, 2 lecture, 2 lab)
This is an introductory course in the art of beautiful or elegant handwriting. Students practice formation of characters with emphasis on harmonious proportions. Studio work includes experience with various tools and materials, including pens, brushes and papers.

ARTS125 Painting I

(3 credit, 1 lecture, 3 lab)
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) [ARTS125]
This studio course emphasizes composition and color theory.

ARTS130 Ceramics I

(3 credit, 1 lecture, 3 lab)
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) [ARTS130]
This studio course emphasizes further development of hand-built and wheel-thrown forms and exploration of decorating, glazing and firing techniques.

ARTS140 Two-Dimensional Design & Color
(3 credit, 2 lecture, 2 lab) [ARTS120 or CMIS161]
This is an introductory course in which students develop a sense of design and color as it relates to graphic design and fine art. After learning the elements and principles of 2-D design, students are introduced to color theory as it applies to design. Students learn to use effective design and color knowledge in formulating a composition. Projects may be produced either by hand art working methods or by computer program, though computer process will not be taught in class. This course is applicable for students interested in pursuing either fine arts or computer graphics/web design degrees.

ARTS150 Beginning Photography
(3 credit, 2 lecture, 2 lab)
This course introduces basic photographic techniques including camera use, developing, printing, enlarging and matting of black and white photographs.

ARTS153 Beginning Digital Photography
(3 credit, 2 lecture, 2 lab)
This course introduces creative use of the digital camera. Darkroom techniques are not taught. Computers and Adobe Photoshop are used to process, retouch and manipulate photos. Computer image capture devices and image output options are explained.

ARTS155 Advanced Black & White Photography
(3 credit, 2 lecture, 2 lab) [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)
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
(3 credit, 2 lecture, 1 lab)
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) [ARTS126]
This studio course emphasizes exploration of traditional or experimental painting techniques.

ARTS228 Painting IV
(3 credit, 1 lecture, 3 lab) [ARTS227]
This studio course emphasizes development of individual expression.

ARTS230 Watercolor Painting
(2 credit, 1 lecture, 1 lab)
This course includes basic instruction in color mixing and the techniques of painting with watercolor.

ARTS232 Ceramics III
(3 credit, 1 lecture, 3 lab) [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) [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) [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) [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.

AUTOMOTIVE MAINTENANCE TECHNOLOGY

AUTO103 Automotive Service

(1 credit, 1 lecture, 3 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; MATH075 or minimum score of 44 in COMPASS Pre-algebra placement domain]

This lecture/lab course includes instruction in safety, automotive tools, measuring devices, complete maintenance procedures, service information, and automotive service job-related skills.

AUTO107 Automotive Brake Systems

(4 credit, 1 lecture, 5.5 lab) [AUTO112]

This course prepares students for State of Michigan certification and includes 104 hours of classroom/lab instruction. Students study the types of brake systems used in modern automobiles and light-duty trucks. Diagnosis and testing of various brake systems is an integral part of the course. Brake systems repair and overhaul is accomplished using industry-standard specialized tools and equipment. Precision machining for brake service is used in the process of repairing and rebuilding the brake system. Handheld scan tools are used for general anti-lock braking systems and manufacturer-specific testing.

AUTO109 Automotive Suspension & Steering

(4 credit, 1 lecture, 5 lab) [AUTO112]

This course prepares students for State of Michigan certification and includes 96 hours of classroom/lab instruction. Students study the types of steering and suspension systems used in modern automobiles and light-duty trucks. Diagnosis and testing of various steering and suspension systems is an integral part of the course. Steering and suspension systems repair, overhaul and alignment is accomplished using industry-standard specialized tools and equipment. Computerized alignment and balancing equipment is utilized.

AUTO112 Basic Automotive Electrical

(2 credit, 0.5 lecture, 2.5 lab) [Pre- or corequisite: AUTO103]

This course is an introduction to basic automotive electrical concepts. Topics include circuitry, specialized tools and equipment, electrical symbols and terminology, and diagnosis and repair procedures.

AUTO113 Advanced Automotive Electrical

(2 credit, 0.5 lecture, 2.5 lab) [AUTO112]

This lecture/lab course prepares students for State of Michigan certification and covers automotive batteries, starting and charging systems, lighting circuits, conventional analog and digital instrumentation, and indicator lights and warning devices.

AUTO203 Automotive Electrical & Electronic Systems

(4 credit, 1 lecture, 5.5 lab) [AUTO113]

This lecture/lab course prepares students for State of Michigan certification and covers the following systems as utilized in modern automobiles and small trucks: starting system, charging system, lighting system, driver information system, horn and wash/wiper system, motorized accessories, cruise control, security systems and entertainment systems. Diagnosing and testing is an integral part of the course. Adjustment, repair, overhaul and replacement is accomplished using the required/proper tools and equipment.

AUTO205 Automotive Engine Performance

(4 credit, 1 lecture, 5.5 lab) [AUTO113]

This lecture/lab course prepares students for State of Michigan certification and covers the principles of operation, diagnosis and repair of fuel injectors and turbochargers used in modern automobiles and small trucks. It allows students to service, diagnose and repair automobiles using special analytical equipment. In addition, the principles of operation, theory of flex fuel vehicles and hybrids, servicing and troubleshooting of the several types of ignition and emission control systems are studied.

AUTO262 Automotive Heating & Air Conditioning Systems

(4 credit, 1 lecture, 5 lab) [AUTO112]

This course prepares students for State of Michigan certification and includes 96 hours of classroom/lab instruction. Students study the types of heating and air conditioning systems used in modern automobiles and light-duty trucks. Diagnosis and testing of various heating and air conditioning systems is an integral part of the course. Heating and air conditioning systems repair, overhaul and replacement is accomplished using industry-standard specialized tools and equipment.

AUTO292A Automotive Service Field Experience

(4 credit, 0 lecture, 4 lab) [AUTO103]

Enrolled students perform jobs related in some way to automotive service. Performance on the job is monitored and guided by the employer and college personnel. Weekly discussion group participation and reports are also required.

AUTO292B Automotive Brake Systems Field Experience

(4 credit, 0 lecture, 4 lab) [AUTO107]

Enrolled students perform jobs related in some way to automotive brake systems. Performance on the job is monitored and guided by the employer and college personnel. Weekly discussion group participation and reports are also required.

AUTO292C Automotive Suspension & Steering Field Experience

(4 credit, 0 lecture, 4 lab) [AUTO109]

Enrolled students perform jobs related in some way to automotive suspension and steering systems. Performance on the job is monitored and guided by the employer and college personnel. Weekly discussion group participation and reports are also required.

AUTO292D Automotive Electrical & Electronic Field Experience

(4 credit, 0 lecture, 4 lab) [AUTO203]

Enrolled students perform jobs related in some way to automotive electrical and electronic systems. Performance on the job is monitored and guided by the employer and college personnel. Weekly discussion group participation and reports are also required.

AUTO292E Automotive Engine Performance Field Experience

(4 credit, 0 lecture, 4 lab) [AUTO292D and AUTO205]

Enrolled students perform jobs related in some way to automotive engine performance. Performance on the job is monitored and guided by the employer and college personnel. Weekly discussion group participation and reports are also required.

AUTO292F Automotive Heating & Air Conditioning Field Experience

(4 credit, 0 lecture, 4 lab) [AUTO262]

Enrolled students perform jobs related in some way to automotive heating and air conditioning systems. Performance on the job is monitored and guided by the employer and college personnel. Weekly discussion group participation and reports are also required.

BIOLOGICAL SCIENCES

BIOL100 Biological Science

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]

This course provides a general education of the biological sciences (cell biology, genetics, evolution, anatomy, organismal biology, ecology) and a basis for individuals to relate to the world around them. Students apply biological concepts and the scientific method in a laboratory setting. Biology 100 presents an opportunity for students to evaluate their own interest and potential in the biological sciences while preparing students for future biology classes (including botany, zoology, microbiology and anatomy/physiology) at this and other institutions.

BIOL104 Introduction to Human Biology

(4 credit, 4 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]

This non-laboratory-based course provides students with a one-semester introduction to human anatomy and physiology and the role that humans play in the biosphere.

BIOL105 Introduction to Anatomy & Physiology

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]

The overall objective of Biology 105 is to introduce the principles and processes of biology through the study of the human organism. Students gain an understanding of how the human body functions through a detailed study of each organ system that comprises the human body. This course gives students a perspective of how the human body maintains homeostasis through the interaction of organ system functions. Current topics in health sciences, nutrition, biology and medicine are discussed as they pertain to specific organ systems. Laboratory

exercises include dissection and physiological experiments pertinent to the topics covered. Students have an option to observe and use a human cadaver.

BIOL110 Botany

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]
This course is a survey of the Fungi and Plant Kingdoms and their natural communities. Plant structure, classification and function are studied through class and outdoor lab experiences, both on and off campus. Students build a representative botanical collection from local flora, with emphasis on the Angiosperms (flowering plants). Students observe and record the phenology (seasonal rhythm) of selected deciduous plants. Students contribute to the scientific body of botanical knowledge through maintenance of the existing MCC Herbarium and through the inventory and preservation of specimens found in an assigned Montcalm County public site. Students must be comfortable with all-weather outdoor physical activity and wear appropriate clothing for such.

BIOL115 Zoology

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]
This course introduces students to the diversity of invertebrates and vertebrates in Kingdom Animalia. This class is intended for students planning to transfer to a four-year college or university with a major in the natural sciences. It is recommended that all students have a minimum of two years of high school science because topics such as animal cell chemistry and structure along with genetics and evolutionary processes are briefly but thoroughly covered. Major phyla are explored with an emphasis on identification and taxonomy. Students learn about the development, anatomy and physiology of major phyla through the use of dissection in a laboratory setting. A portion of the class focuses on animals native to Michigan and completion of an invertebrate collection.

BIOL121 College Biology I

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]
This course (in conjunction with BIOL122) provides students with an in-depth introduction to fundamental areas of biology. It is intended as the first part of a two-semester sequence designed for students planning to transfer to a four-year college or university with a major in the natural sciences. This course emphasizes the scientific method, cellular structure, function, and metabolism, cellular reproduction and genetics and the diversity of microorganisms. Laboratories introduce basic biological techniques and reinforce principles learned in lecture.

BIOL122 College Biology II

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]
This course (in conjunction with BIOL121) provides students with an in-depth introduction to fundamental areas of biology. It is intended as the second part of a two-semester sequence designed for students planning to transfer to a four-year college or university with a major in the natural sciences. However, students are not required to take BIOL 121 before enrolling in this course. BIOL 122 emphasizes the scientific method, natural selection and evolutionary theory, investigation of the major eukaryotic kingdoms, basic anatomy and physiology of plants and animals, and ecological principles. Students perform and report on an experiment of their own design. Laboratories introduce basic biological techniques and reinforce principles learned in lecture.

BIOL201 Microbiology

(4 credit, 3 lecture, 2 lab) [BIOL100 or BIOL105 or BIOL110 or BIOL115 or BIOL121 or BIOL122 or BIOL202 or BIOL203]
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 as well as their impact on everyday life. Laboratory exercises provide hands-on opportunities to grow and work with a variety of living microorganisms.

BIOL202 Anatomy & Physiology I

(4 credit, 3 lecture, 2 lab) [BIOL100 or BIOL105 or BIOL121]

BIOL202 is an introduction to basic structural and functional aspects of the human body. The contribution of each body system to the total well-being of the individual is emphasized, as well as the interdependence of the body systems. Specific topics studied include anatomical terminology, chemical basis of life, cells, cellular metabolism, tissues, integumentary system, skeletal system, muscular system, nervous system and special senses. Special emphasis is placed upon homeostatic mechanisms whenever feasible. Laboratory exercises include dissection and physiological experiments pertinent to the topics covered. Students have an option to observe and use a human cadaver.

BIOL203 Anatomy & Physiology II

(4 credit, 3 lecture, 2 lab) [BIOL202]

This continuation of BIOL202 covers 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.

BIOL208 Nature Study

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-algebra or DVED163 or MATH075]

This course, occurring primarily in the field, is a hands-on introduction to nature study. Students learn the natural history of many species indigenous to Michigan and the United States as well as the biological processes shaping the natural world. Field trips, both on campus and around the state, focus on identification of local flora and fauna. Topics covered in lecture include taxonomy and classification, characteristics of major kingdoms and phyla, animal behavior, ecology, conservation biology, geology, and astronomy. Students prepare several specimen collections and develop a class field guide. Students should be prepared for mild physical exertion in the field, during both good and bad weather conditions. Participation in a weekend camping trip is required. Upon completion of this course students will have developed the skills necessary to understand, explore, and appreciate the natural world around them.

BUSINESS ADMINISTRATION

BUSN135 Introduction to Business

(3 credit, 3 lecture, 0 lab)

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.

BUSN137 Topics in Entrepreneurship

(2 credit, 2 lecture, 0 lab)

This introduction to entrepreneurship allows students to contribute to the creation of a business plan. It exposes students to team building, mission statements, problem solving, the nature of products and services, marketing, retailing and international issues.

BUSN141 Employability Skills

(3 credit, 3 lecture, 0 lab)

This course is designed to help students recognize the important role personal qualities play in the work environment and to develop the success attitudes, interpersonal skills and values that are in demand by employers.

BUSN160 Business Mathematics

(3 credit, 3 lecture, 0 lab) [Minimum score of 44 on COMPASS Pre-Algebra test and CMIS101 or CMIS157]

This course deals with practical application of mathematics concepts and fundamentals in business solutions. Topics include retail, accounting, finance and statistics. Students explore how to utilize spreadsheet software to compute business math applications. Many of the problems deal with solving equations through algebraic methods, so students must have some algebra background.

BUSN180 Business Communications I

(3 credit, 3 lecture, 0 lab) [Pre- or corequisite: CMIS101]

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.

BUSN185 Business Communications II

(3 credit, 3 lecture, 0 lab) [BUSN180]

This course focuses on nonverbal, oral, and intercultural communication skills; writing with electronic technology; formatting effective sentences and paragraphs; planning techniques for writing effective correspondence in business; and collaborative writing.

BUSN200 Legal Environment of Business

(3 credit, 3 lecture, 0 lab)

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

(1 credit, 1 lecture, 0 lab)

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.

BUSN253 Principles of Investment

(3 credit, 3 lecture, 0 lab)

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)

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 United States.

BUSN265 An Investigation of Leadership

(3 credit, 2 lecture, 2 lab) [CMIS101 and MGMT250]

Various aspects of leadership are explored including the influence of motivation, organizational change and organizational structure. Students are exposed to contemporary models of leadership and are expected to develop and present their own personal leadership plan. The use of technology including spreadsheets, word processing and presentation development software to aid in the development and presentation of various projects should be anticipated.

BUSN283 Business Practice Firm

(3 credit, 3 lecture, 0 lab) [Instructor or counselor approval]

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.

CHEMISTRY

CHEM105 Introductory Chemistry

(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; and minimum score of 34 in the COMPASS algebra placement domain or MATH100]

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) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; and minimum score of 34 in the COMPASS algebra placement domain or MATH100]

Fundamental principles, laws and theories of general chemistry, including nomenclature, chemical reactions and solution stoichiometry, gas laws, thermochemistry, atomic structure, periodicity and chemical bonding are covered. Concurrent laboratory/workshop sessions include exercises illustrating the principles discussed in lecture. Students who anticipate enrolling in additional chemistry courses are encouraged to take this course as it is basic to all advanced chemistry courses and many professional degrees.

CHEM221 College Chemistry II

(5 credit, 4 lecture, 2 lab) [CHEM220]

This continuation of CHEM220, includes chemical bonding, liquids and solids, acid-base chemistry, solutions, chemical kinetics, chemical equilibrium, electrochemistry, nuclear chemistry and a brief survey of organic and biochemistry. Laboratory sessions involve

experiments illustrating topics discussed in lecture. This course is a prerequisite for higher-level chemistry courses.

CHEM251 Organic Chemistry I
(5 credit, 4 lecture, 2 lab) [CHEM221]
Chemistry 251 is the first part of a two semester sequence in organic chemistry. It provides an overview of organic chemistry, focusing on nomenclature, modern bonding theory, chemical reactions, reaction energetics, stereochemistry and nomenclature of alkanes, cycloalkanes, alkenes, alkynes, alkyl halides, alcohols and aromatics. A mechanistic approach in organic problem solving is stressed. Concurrent laboratory includes methods of separation, analysis, synthesis and purification of organic compounds.

CHEM252 Organic Chemistry II
(5 credit, 4 lecture, 2 lab) [CHEM251]
This course focuses on ethers, carbonyl compounds, aldehydes and ketones, carboxylate derivatives, conjugation, aromaticity, amino acids, proteins, carbohydrates and nucleic acids. Concurrent laboratory focuses on the multistep synthesis of various organic compounds and their spectral analysis.

COMPUTER INFORMATION SYSTEMS

CMIS090 Computer Essentials
(1 credit, 1 lecture, 1 lab)
This beginner's lecture/lab course uses hands-on applications to become familiar with the basics of computer operation.

CMIS100 Keyboarding
(1 credit, 0 lecture, 1 lab)
Students develop a keyboarding knowledge base necessary to enroll in other computer courses.

CMIS101 Computer Literacy
(3 credit, 3 lecture, 0 lab) [Pre- or corequisite: CMIS100 or CMIS106]
This course is an introduction to computers as a basic tool. Emphasis is on basic concepts of information technology, understanding operating systems and file management, word processing, spreadsheets, databases, presentations, Internet research and e-mail. Current online course management software is introduced.

CMIS102 Introduction to Windows
(1 credit, 0 lecture, 1 lab)
This course teaches students the fundamentals and skills necessary to adequately use Windows.

CMIS104 Ten-Key Numeric Entry
(1 credit, 0 lecture, 1 lab)
This open-lab course uses individualized, self-paced instruction to develop speed and accuracy with the ten-key numeric keypad.

CMIS106 Document Production I
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS100]
This open-lab course emphasizes improving keyboarding speed and accuracy and the preparation of business and personal documents such as letters, memos, tables and reports.

CMIS110 Exploring the Internet
(1 credit, 0 lecture, 1 lab)
This course provides the framework for learning how to access the Internet and World Wide Web and use them for a variety of tasks including communicating using the Internet; searching, accessing, and evaluating resources. It is designed for people who are interested in learning how to best use the tools, services and resources currently available on the Web and the Internet.

CMIS111 Microsoft MovieMaker
(1 credit, 1 lecture, 1 lab)
This course introduces Microsoft MovieMaker to capture and edit digital video, including transitions, narration and special effects.

CMIS112 Microsoft InfoPath
(1 credit, 0 lecture, 1 lab) [CMIS158]
This open-lab course introduces Microsoft InfoPath to create interactive web-based forms for collaborative use. InfoPath provides a user-friendly interface for entering information into these forms and automatically updates data in XML format.

CMIS113 Microsoft Producer
(2 credit, 2 lecture, 2 lab) [CMIS159]
This course introduces Microsoft Producer to capture, synchronize and publish audio, video, slides and images for presentations and Web page delivery.

CMIS114 Macromedia Dreamweaver

(3 credit, 2 lecture, 2 lab) [CMIS101]

This course is a comprehensive introduction to the Macromedia Dreamweaver Web authoring software. Topics include designing and creating Web pages with graphics, frames, forms and layers. Students work with styles, cascading style sheets (CSS) and databases to organize and manage Web pages and publish to a Web server.

CMIS115 Introduction to Computer Information Systems

(3 credit, 2 lecture, 2 lab) [CMIS101 & minimum reading score of 82 on COMPASS or DVED152 or DVED153]

This course covers basic concepts, principles and functions of the computer system and applications software, history and evolution of the computer and its current role in society. Standard applications including word processing, spreadsheets, databases and presentation software are used.

CMIS116 Microsoft Expression Web I

(2 credit, 0 lecture, 2 lab) [CMIS101]

This course is an introduction to the Microsoft Expression Web authoring software. Topics for this course include planning, designing and creating Web pages with graphics, links and cascading style sheets. Students explore effective Web navigation and publish sites to a server.

CMIS120 Computer Applications in Health Care

(3 credit, 2 lecture, 2 lab)

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.

CMIS130 Introduction to Programming & Logic

(4 credit, 4 lecture, 0 lab) [CMIS101 and minimum score of 44 on COMPASS Pre-Algebra test]

This course investigates problem solving using Visual Basic.NET. Emphasis is on basic programming structures, string manipulation, binding to external databases, functions, arrays and formatting. Planning, testing, debugging and style of developing a visual interface are also examined.

CMIS131 Introduction to Programming C++

(4 credit, 4 lecture, 0 lab) [CMIS101 and minimum score of 44 on COMPASS Pre-Algebra test]

This course investigates problem solving using the C++ programming language. Emphasis is on input/output, iteration, pointers, arrays, constants and variables, arithmetic operations and expressions. This class focuses on the development of basic program design using fundamental program structures.

CMIS132 Introduction to HTML Programming

(3 credit, 2 lecture, 2 lab) [CMIS101 and minimum score of 44 on COMPASS Pre-Algebra test]

This course investigates problem solving using the HTML programming language. Participants develop and publish Web pages utilizing fundamental HTML coding techniques. Emphasis includes proper Web page layout, understanding tags, linking to Internet objects, color and image integration, image mapping, frames, tables and format. Form validation, Java, and the integration of sound and video files are also considered.

CMIS146 Input Technologies

(2 credit, 1 lecture, 2 lab)

This course is designed to expose students to a variety of emerging input mediums for the office environment. Students learn speech-to-text input using voice recognition software and handwriting input using Microsoft Office.

CMIS147 Handheld Computer Productivity

(1 credit, 1 lecture, 0 lab)

This course is designed to help students understand and utilize the productivity features of handheld computers, the Palm operating system and Palm Desktop Software.

CMIS148 Handheld Computers for Educators

(1 credit, 1 lecture, 0 lab)

This course is an introduction to handheld computers in the educational environment.

Instruction includes handheld basics, as well as exploration of software and hardware appropriate for K-12 classroom and administrative use. Strategies for implementing and integrating handhelds to enhance teaching and learning are emphasized.

CMIS151 Project Management
(3 credit, 2 lecture, 1 lab)
This course provides an introduction to Microsoft Project. Students work with the following features of Project: creating a project schedule, communicating project information, assigning resources and costs, tracking progress and closing the project, and sharing project information with other applications.

CMIS153 Microsoft Outlook I
(1 credit, 0 lecture, 1 lab)
This open-lab course provides an introduction to Microsoft Outlook. Students work with the following features of Outlook: electronic mail, calendar and appointments, contacts, tasks, journals and notes, and folders.

CMIS156 Microsoft Word I
(1 credit, 0 lecture, 1 lab)
This open-lab course provides an introduction to Microsoft Word. Students create, edit, and print documents.

CMIS157 Microsoft Excel I
(1 credit, 0 lecture, 1 lab)
This open lab course provides an introduction to Microsoft Excel. Students create and edit worksheets and charts.

CMIS158 Microsoft Access I
(1 credit, 0 lecture, 1 lab)
This open-lab course provides an introduction to Microsoft Access. Students create and manipulate databases.

CMIS159 Microsoft PowerPoint I
(1 credit, 0 lecture, 1 lab)
This open-lab course provides an introduction to Microsoft PowerPoint. Students create, edit and run slide show presentations.

CMIS161 Digital Images & Editing I
(3 credit, 1 lecture, 3 lab) [CMIS101 or CMIS102]
This course introduces imaging software, such as Adobe Photoshop, and integrated Web production applications, such as Adobe ImageReady. Students create, edit, and enhance a variety of digital images.

CMIS162 Digital Illustration
(3 credit, 3 lecture, 0 lab)
Students use graphic design software, such as Adobe Illustrator, to produce illustrations for print, Web or other media.

CMIS163 PDF Publishing
(2 credit, 0 lecture, 2 lab)
Students are introduced to portable document format software, such as Adobe Acrobat, to exchange, review, protect and print PDF documents.

CMIS175 Microcomputer Applications
(4 credit, 4 lecture, 0 lab) [CMIS115 or CMIS256, CMIS257, CMIS258, and CMIS259]
This continuation of CMIS115 further develops word processing, spreadsheet, database and presentation software techniques using Microsoft Office. Intermediate skills using these applications are developed through applied projects within a business context.

CMIS176 Microsoft Publisher I
(1 credit, 0 lecture, 1 lab)
This open-lab course provides an introduction to Microsoft Publisher. Students create, edit, design, and print desktop publishing documents.

CMIS190 Records Management
(3 credit, 3 lecture, 1 lab) [CMIS115 or CMIS258]
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 are also covered. Students complete projects using database software on the computer.

CMIS206 Document Production II
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS106]
This open-lab course emphasizes improving keyboarding speed and accuracy and the preparation of business documents such as itineraries, agendas, minutes, manuals, formal reports, and advanced tables. Document formatting for international applications is also introduced.

CMIS216 Microsoft Expression Web II

(2 credit, 0 lecture, 2 lab) [CMIS116]

This continuation of CMIS116 further develops the student's ability to use Microsoft Expression Web. Topics for this course include working with tables, forms, behaviors, using advanced CSS techniques for typography, and page layouts. Students explore Dynamic Web Templates.

CMIS220 Medical Administrative Procedures

(3 credit, 2 lecture, 1 lab) [AHEA215 and CMIS101]

This course covers the theory and skills in the administrative duties and other office management tasks performed in a medical office/clinic setting. It includes clerical, bookkeeping, accounting, and other operational procedures. Students develop marketable skills in the use of computer software for the medical profession. This course is identical to AHEA114.

CMIS235 Voice Transcription: Medical

(2 credit, 0 lecture, 2 lab) [AHEA215 and CMIS284]

This open-lab course develops medical transcription skills using a cassette tape transcriber at the computer. Typing proficiency, grammar, punctuation and proofreading skills are emphasized while creating medical documents.

CMIS250 Microcomputer Spreadsheets

(3 credit, 3 lecture, 0 lab) [CMIS115]

This comprehensive course is designed to address intermediate- to advanced-level skills using Microsoft Excel. It uses a substantial amount of hands-on development and focuses on solving business-related problems.

CMIS255 Microcomputer Database Applications

(4 credit, 4 lecture, 0 lab) [CMIS115]

This comprehensive course addresses concepts of database management and the application of a typical database system in various business applications using Microsoft Access. A strong component in database theory is presented, as well as substantial hands-on database development.

CMIS256 Microsoft Word II

(1 credit, 0 lecture, 1 lab) [Pre- or corequisite: CMIS156]

This open-lab course provides intermediate instruction in Microsoft Word. Students create documents with multiple columns, charts, special formats and styles. Collaboration tools for working within a group environment are also introduced.

CMIS257 Microsoft Excel II

(1 credit, 0 lecture, 1 lab) [Pre- or corequisite: CMIS157]

This open-lab course provides experience using intermediate features of Microsoft Excel. Students create and edit worksheets and charts.

CMIS258 Microsoft Access II

(1 credit, 0 lecture, 1 lab) [Pre- or corequisite: CMIS158]

This open-lab course provides experience using intermediate features of Microsoft Access. Students create, manipulate and manage databases.

CMIS259 Microsoft PowerPoint II

(1 credit, 0 lecture, 1 lab) [Pre- or corequisite: CMIS159]

This open-lab course provides intermediate instruction in Microsoft PowerPoint. Students enhance presentations with graphic elements, images, visual effects, transitions, interactivity, and animation.

CMIS260 Advanced Microcomputer Applications

4 credit, 4 lecture, 0 lab) [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.

CMIS261 Digital Images & Editing II

(3 credit, 1 lecture, 3 lab) [CMIS161 or instructor approval]

This course covers advanced design techniques using imaging software such as Adobe Photoshop. Students work with curves, levels, blending modes, special effects and painting and drawing tools to create designs and images.

CMIS265 Systems Analysis & Design
(4 credit, 4 lecture, 0 lab) [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) [CMIS284]
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.

CMIS280 Microsoft Publisher II
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS176]
This open-lab course provides experience using intermediate features of Publisher to perform desktop publishing.

CMIS284 Document Production III
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS206]
This open-lab course emphasizes improving keyboarding speed and accuracy and the preparation of documents in a medical and legal environment, and designing forms, publications, and Web pages.

CMIS285 Microsoft Word III
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS256]
This open-lab course provides advanced instruction in Microsoft Word. Students work with tables, graphics and objects; create styles; automate mass mailings; work with large documents; create standardized forms and documents; work collaboratively; and customize Word.

CMIS286 Microsoft Excel III
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS257]
This open-lab course provides advanced instruction in Microsoft Excel. Students will create templates, validate entries, and use Excel database capabilities, as well as utilize various analysis and collaboration tools.

CMIS287 Microsoft Access III
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS258]
This open-lab course provides advanced instruction in Microsoft Access. Students create advanced reports and queries, use macros and switchboards, and explore integration with other programs.

CMIS288 Microsoft PowerPoint III
(2 credit, 0 lecture, 2 lab) [Pre- or corequisite: CMIS259]
This open-lab course provides advanced instruction in Microsoft PowerPoint. Students create presentations for remote broadcasts, kiosks and Web publications.

CMIS290 Field Experience
(variable credit) [Written instructor approval]
This course consists of a carefully planned cooperative work experience in the office. Students must show evidence of satisfactory progress through employer reports and instructor visits to the office site.

COMPUTER SUPPORT

CSTC100 Concepts of Electricity
(3 credit, 2 lecture, 2 lab) [Minimum score of 44 on COMPASS Pre-Algebra 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.

CSTC105 Electronic Fabrication
(1 credit, 0 lecture, 2 lab) [CSTC100]
This course provides students an opportunity to develop skills of electronic 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.

CSTC127 Introduction to Networking
(3 credit, 0 lecture, 4 lab) [CMIS115 or CSTC171]
This course provides a comprehensive introduction to computer network systems and the skills needed to install, configure and trouble-

shoot basic networking hardware peripherals and protocols. Lab time emphasizes system installation and problem solving techniques. Material is relevant to CompTIA's Network+ Certification Exam.

CSTC133 Network Management

(3 credit, 2 lecture, 1 lab) [CSTC127]

This hands-on course introduces students to the concepts, principles and skills necessary to network managers. Students successfully completing this course are competent in the skills necessary to install, manage and trouble-shoot network management systems. While a specific networking system is utilized, the skills acquired are transportable to a variety of network management systems.

CSTC130 Digital Logic

(3 credit, 2 lecture, 2 lab) [CSTC100 or ELEC111]

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 controls.

CSTC171 Computer Maintenance I

(3 credit, 2 lecture, 2 lab) [CSTC100]

This is the first of two courses that introduces students to entry level skills used in computer repair and maintenance. Topics include computer assembly, component specifications, installation and configuration of operating system software, memory optimization, resolution of hardware and software conflicts, and peripheral maintenance. Lab time emphasizes a "hands-on" use of computers and problem-solving techniques.

CSTC172 Computer Maintenance II

(3 credit, 2 lecture, 2 lab) [CSTC171]

This is the second course that prepares students in computer repair skills. Topics include installation and configuration of disk drives, system memory, video cards, sound cards and operating systems. Resolving hardware and software conflict, and an introduction to networking are also covered. Lab time emphasizes a "hands-on" use of computers and problem-solving techniques.

CONSTRUCTION MANAGEMENT

CNST110 Residential Construction Materials & Methods I

(3 credit, 1.5 lecture, 1.5 lab)

This course covers the basic materials and construction methods used for residential construction through the rough-in phase which includes foundation systems, floor systems, walls and ceiling systems, roof systems and exterior finishes.

CNST111 Residential Construction Materials & Methods II

(3 credit, 1.5 lecture, 1.5 lab) [CNST110]

This course covers the basic materials and construction methods used for residential construction for interior finishes which includes thermal and sound insulation, interior wall and finishes, floor coverings, stair construction, doors and interior trim, along with mechanical systems which include electrical, plumbing, heating, ventilation and air conditioning. Students also learn how to manage residential construction projects, including the scheduling of labor, materials and trades.

CNST200 Residential Construction Layout and Surveying

(3 credit, 3 lecture, 0 lab) [Pre- or corequisite: CNST111]

This course covers the basic skills necessary to develop and layout a residential building site including the use of property surveys and building layout methods.

CNST205 Codes, Permits, and Inspections

(3 credit, 3 lecture, 0 lab) [CNST111]

This course covers MIOSHA, applicable building codes, building permits and the necessary inspections for residential construction and the application process.

CNST210 Blueprint Reading, Estimating & Bidding

(4 credit, 2 lecture, 2 lab) [Pre- or corequisite: CNST111 and minimum score of 36 on COMPASS Pre-algebra test or DVED161 or MATH050]

The course covers the symbols and processes used in reading residential and commercial blueprints and specifications. Students learn how to estimate residential construction projects, and use those estimates to prepare bid

documents. Students complete a job set-up and apply their estimated costs to the appropriate cost codes.

CNST215 Builder's Exam Preparation
(1 credit, 0 lecture, 1 lab) [CNST111]
This course prepares students to take the Michigan residential builder's license exam.

COMMUNICATION

COMM120 Orientation to Deafness
(3 credit, 3 lecture, 0 lab) [Minimum writing score of 71 on COMPASS and minimum reading score of 82 on COMPASS]
This course is designed to introduce students to pathological and cultural perspectives of deafness and the implications those perspectives have for persons who are deaf. Elements of the communications process, nonverbal communication, group dynamics, and research and oral presentation skills are also covered, using lectures, readings and group discussions.

COMM125 American Sign Language I
(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171]
This course provides basic knowledge of American Sign Language vocabulary and grammar. Pantomime is also used to explore nonverbal communication and its function within ASL. Elements of the communication process, ASL presentation skills, and group dynamics are also covered.

COMM126 American Sign Language II
(3 credit, 3 lecture, 0 lab) [COMM125]
This course is designed to increase students' knowledge and use of American Sign Language vocabulary and grammar, as well as focus on specific grammatical elements for more in-depth analysis and practice.

COMM130 Fingerspelling in ASL
(3 credit, 3 lecture, 0 lab) [Pre- or corequisite: COMM126]
This course provides students with concentrated instruction and practice in both expressive and receptive fingerspelling and numbering skills. Aspects of sign language interpreting are discussed.

COMM160 Journalism
(3 credit, 3 lecture, 0 lab)
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, 3 lecture, 0 lab)
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.

COMM220 Interpersonal Communication
(3 credit, 2 lecture, 1 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course increases the student's understanding of interpersonal communication in social and professional areas. Students learn theories and ethics of interpersonal communication, evaluate message strategies used in interpersonal communication contexts, select and apply communication strategies that strengthen social and professional relationships, and solve interpersonal communication problems in a systematic and thoughtful fashion.

COMM225 Advanced American Sign Language I
(3 credit, 3 lecture, 0 lab) [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) [COMM225]
This continuation of COMM225 further develops and builds vocabulary and syntax. Students demonstrate competencies by interpreting sentences, songs and stories in class.

COSMETOLOGY

COSM100 Introduction to Cosmetology
(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153;

minimum writing score of 71 on COMPASS or DVED171; minimum score of 36 on COMPASS Pre-algebra]
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) [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 & Permanent Waving Theory
(3 credit, 3 lecture, 0 lab) [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 & Professional Development Theory
(3 credit, 3 lecture, 0 lab) [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) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum score of 36 on COMPASS Pre-algebra; 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 & 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 & 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) [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 & Permanent Waving Theory
(3 credit, 3 lecture, 0 lab) [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) [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 & Board Review Theory
(3 credit, 3 lecture, 0 lab) [COSM202]
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 & 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 II Lab
(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 & 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
(16 credit, 9 lecture, 22 lab) [Written instructor approval]
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.

CRIMINAL JUSTICE/ CORRECTIONS

CRIM100 Introduction to Criminal Justice
(3 credit, 3 lecture, 0 lab)
This course provides a broad overview of the history and scope of the American criminal justice system primarily through a descriptive survey of the agencies and processes involved in the administration of criminal justice. The course emphasizes historical, constitutional (legal) and political considerations. Criminal justice is analyzed as a system, with emphasis on the problems and prospects for change.

CRIM110 Introduction to Corrections
(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course provides a broad overview of the American corrections system and presents an explanation of the various goals of corrections including incapacitation, retribution, deterrence, rehabilitation, and reintegration. Specific coverage of the development of correctional ideologies from early history to the modern era and how those ideologies were reflected in various types of programs is presented. Additional attention is given to the legal issues and processes which move an individual in and out of the system and how civil rights decisions have influenced the continuing development of corrections.

CRIM115 Stress Management for Correctional Officers
(1 credit, 1 lecture, 0 lab)
This course focuses on the physical and psychological effects of a criminal justice career on the practitioners and their families. A variety of stress management strategies and techniques are discussed. Students select and demonstrate those most appropriate for their own needs.

CRIM120 Corrections Institutions/Facilities

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
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 & Operations

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course is for persons pursuing careers in criminal justice or those already employed within the system. Participants explore the evolution of administrative theory with special emphasis on its impact and application at the operational and administrative levels of law enforcement agencies.

CRIM130 Criminal Investigation

(3 credit, 3 lecture, 0 lab)
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.

CRIM136 Communication in Criminal Justice

(3 credit, 3 lecture, 0 lab)
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. It is applicable for all criminal justice students: law enforcement, state corrections, and local corrections.

CRIM137 PPCT Defensive Tactics

(2 credit, 1 lecture, 2 lab)
This course is designed to meet Michigan Commission On Law Enforcement Standards (MCOLES), Michigan Corrections Officer Training Council (MCOTC), and Michigan Sheriff's Coordinating and Training Council (MSA) requirements for defensive tactics to prepare law enforcement and corrections students for employment in the field of criminal justice.

CRIM138 Emergency Intervention Techniques

(2 credit, 1 lecture, 2 lab)
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)
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) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
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)
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 & Community Corrections
(3 credit, 3 lecture, 0 lab) [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 as well as 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)
This course is designed for persons employed in or interested in a career within the broad field of public and private security administration. The course is designed to provide a broad overview of public and private security in its practical application, and to suggest certain theoretical approaches to some of its problems. Specific coverage includes the history and organization of security, principles of risk assessment, physical protection, systems of defense, internal security, fire prevention, emergency planning, safety and insurance protection.

CRIM250 Client Relations in Corrections
(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
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) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
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, 5 lab) [Approval from Program Coordinator]
This course is a planned program of internship, including observation, study, and work in selected criminal justice-related agencies. It supplements previous classroom study through participation in United States or foreign criminal justice systems.

DEVELOPMENTAL EDUCATION

DVED108 Problem Solving
(3 credit, 3 lecture, 0 lab)
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)
This course is designed to assist students in developing life-planning skills to make informed career choices. The course focuses on self-awareness, decision-making strategies, value clarification, academic planning, career exploration, and interest inventory assessments resulting in a comprehensive career plan.

DVED120 Dealing with Stress
(1 credit, 1 lecture, 0 lab)
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.

DVED145 Improving Reading & Writing

(3 credit, 2 lecture, 1 lab)

This course offers an opportunity to improve communication skills in both reading and writing and is intended for students who receive COMPASS recommendations to enroll in both a Developmental Reading and Writing course. Throughout the course, the relationships between clear writing and reading for comprehension are foremost. Students attend both a lecture/discussion session (scheduled) and an open lab session (to be arranged through the Developmental Education Lab) each week.

DVED150 Developmental Reading I

(3 credit, 0 lecture, 3 lab)

The purpose of this course is to assist students in the development and improvement of reading skills. Developing vocabulary, word-attack skills, and comprehension are basic course goals. Comprehension is taught through mastering a set of individual skills such as finding the writer's topic, main ideas and supporting details, and identifying patterns of organization authors commonly use to arrange their writing.

DVED151 Developmental Reading II

(2 credit, 0 lecture, 2 lab)

The purpose of this course is to assist students in the development and improvement of reading skills. In a lab format, students develop vocabulary, comprehension and critical reasoning skills.

DVED152 Developmental Reading III

(3 credit, 0 lecture, 3 lab) [DVED151 or minimum reading score of 61 on COMPASS]

The purpose of this course is to assist students in the development and improvement of reading skills. In a lab format, students develop vocabulary and comprehension skills. Like DVED150 and 151, this course teaches specific reading skills such as locating main ideas and details but adds lessons on making inferences, distinguishing facts from opinions, and identifying the author's purpose and tone.

DVED153 Developmental Reading IV

(2 credit, 0 lecture, 2 lab) [DVED152 or minimum reading score of 75 on COMPASS]

The purpose of this course is to assist students in the development and improvement of reading skills. Challenging readings and college-level vocabulary are studied to improve comprehension and critical reasoning skills. The approach is similar to that in DVED151 in which students improve their comprehension through activities that demand analysis, logic and critical thinking.

DVED156 Efficient Study

(3 credit, 3 lecture, 0 lab)

This course provides instruction and practice in time and task management, setting goals, textbook reading and study, note-taking, study environment, and exam preparation. Students are required to apply study techniques taught in this course in another academic course and demonstrate their use through a course portfolio.

DVED160 Arithmetic Review I

(1 credit, 0 lecture, 1 lab)

This course provides a review of whole numbers and fractions. Instruction in an individualized learning lab allows students to progress at their own pace.

DVED161 Arithmetic Review II

(1 credit, 0 lecture, 1 lab) [Minimum score of 32 on COMPASS Pre-Algebra test or corequisite: DVED160]

This course provides a review of ratio and proportion, percentages, measures of central tendency, and graphical data. It is offered in an individualized, self-paced learning format. This course is recommended to students who have mastered whole number, fraction and decimal skills and who want further arithmetic review. This course may be taken concurrently with DVED160, Arithmetic Review I, in which case the courses will be completed in sequence.

DVED163 Pre-algebra

(1 credit, 0 lecture, 1 lab) [DVED161 or minimum score of 36 on COMPASS Pre-Algebra 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 BUSN160, CMIS115, PHYS101, CSTC100, MATH100 or MATH110.

DVED170 Introduction to College Writing I

(2 credit, 0 lecture, 2 lab)

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.

DVED171 Introduction to College Writing II

(2 credit, 0 lecture, 2 lab) [DVED170 or minimum writing score of 38 on COMPASS]
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.

EARLY CHILDHOOD DEVELOPMENT

ECDV100 Introduction to CDA

(1 credit, 1 lecture, 0 lab)
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) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course provides students with knowledge of physical, cognitive, social, and emotional development in the prenatal, infancy, and toddler periods. Basic theories, developmental principles, safety issues, nutrition, 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) [Pre- or corequisite: ECDV110]
This course provides students with knowledge of physical, cognitive, social and emotional development during the preschool years. Basic theories, developmental principles, guidance techniques, safety, health, nutrition and parent involvement strategies are presented. Students spend 30 hours observing preschoolers in the field.

ECDV125 Child Development: The School Age Child

(3 credit, 3 lecture, 0 lab) [Pre or corequisite: ECDV120]
This course provides students with knowledge of physical, cognitive, social, and emotional development of children ages six through twelve. Basic theories, developmental principles, guidance techniques, safety, health, nutrition, and family involvement strategies are presented.

ECDV131 Infant/Toddler Curriculum

(3 credit, 3 lecture, 0 lab) [ECDV110]
This course explores curriculum development in infant/toddler education programs. Students explore the social, emotional, creative, physical, and cognitive skill development and needs of infants and toddlers. Through this course, students gain the skills necessary to plan developmentally appropriate curriculum. Students spend 30 hours in the field developing and delivering curriculum.

ECDV135 Preschool Curriculum

(3 credit, 3 lecture, 0 lab) [ECDV120]
This course explores curriculum development in preschool education programs. Students explore the social, emotional, creative, physical, and cognitive skill development and needs of preschoolers. Through this course, students gain the skills necessary to plan developmentally appropriate curriculum, including developmentally appropriate movement activities to enhance the lives of young children. Students spend 30 hours in the field developing and delivering curriculum.

ECDV140 Michigan Child Care Futures: Basics

(1 credit, 1 lecture, 0 lab)
This course provides basic comprehensive training for family, group, center, relative, and certified aide child care providers. This training meets the child development training requirements for State licensing standards for group child care homes. This training can be used toward earning a Child Development Associate (CDA) credential.

ECDV141 Michigan Child Care Futures: Advanced

(1 credit, 1 lecture, 0 lab) [ECDV140]
This course provides advanced training for family, group, center, relative, and certified aide child care providers. This training can be used toward the child development training requirements for State licensing standards for

group child care homes, and can be used toward earning a Child Development Associate (CDA) credential.

ECDV142 Michigan Childcare: Special Needs

(1 credit, 1 lecture, 0 lab) [ECDV140]

This course provides special needs training to family, group, center, relative, and certified aide childcare providers. The training can be used toward the child development training requirements for State licensing standards for group child care homes, as an elective for the Early Childhood Development Associate degree and to meet a portion of the related instruction leading to the Child Development Associate (CDA) credential.

ECDV143 Michigan Childcare Futures: All Children

(1 credit, 1 lecture, 0 lab) [ECDV140]

This course provides special needs training to family, group, center, relative, and certified aide childcare providers. The training can be used toward the child development training requirements for State licensing standards for group child care homes, as an elective for the Early Childhood Development Associate degree and to meet a portion of the related instruction leading to the Child Development Associate (CDA) credential.

ECDV150 Administration of Early Childhood Programs

(3 credit, 3 lecture, 0 lab) [ECDV120]

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. This course provides hands-on experience in grant writing and budgeting for early childhood programs.

ECDV160 Children with Special Needs

(3 credit, 3 lecture, 0 lab) [ECDV120]

This comprehensive review of the various issues regarding young children with special needs includes the recognition of individual likenesses and differences among children, developmental milestones, and effective caregiver/ teacher strategies for working with this population. 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 inclusion of young children in early childhood programs.

ECONOMICS

ECON215 Principles of Macroeconomics

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]

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) [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.

EDUCATION

EDUC100 Introduction to Teaching

(3 credit, 3 lecture, 0 lab)

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 to pursue K-12 teaching as a profession.

ELECTRICITY/ELECTRONICS

ELEC110 Electrical Circuit Analysis

(3 credit, 2 lecture, 2 lab) [CSTC100, Pre- or corequisite: MATH114 or MATH120]

This course emphasizes the analysis of passive electrical circuits using Ohm's Law, Kirchoff's laws, network theorems, phasors and computer simulation. Students use appropriate test equipment in the development of troubleshooting techniques.

ELEC111 DC Electronics

(3 credit, 2 lecture, 3 lab) [Pre- or corequisite: MATH100 or MATH110]

This is an introduction to basic electronics with emphasis on direct current. This course covers the physics of electronics, voltage, resistance, Ohm's Law, magnetism, DC motors and generators, inductance, capacitance, RC time constants and network theorems. Laboratory experiments include measuring DC current and voltage, resistance and power, using bridge circuits, capacitors and inductors.

ELEC112 AC Electronics

(3 credit, 2 lecture, 3 lab) [ELEC111; Pre- or corequisite: MATH114 or MATH120]

This is a continuation of the study of basic electronics with emphasis on alternating current. The course includes AC measurements, capacitive, inductive and tuned circuits, transformers and basic DC and AC motors. Laboratory experiments include measuring AC voltage and power, use of the oscilloscope, RC, RL, and RCL circuits and transformer operation.

ELEC115 Semiconductors & Instrumentation

(3 credit, 2 lecture, 3 lab) [ELEC112]

This is an overview of semiconductor devices and an introduction to electronic instrumentation. Starting with the basic diode and a small signal transistor, students empirically create a set of component curves and learn to extract information from them. This also includes in-depth exposure to oscilloscope use and operation. Later in the course the class revisits in more detail the theory and operation of electronic instrumentation. The lab experience in this part of the course includes the design of a working multi range volt meter, an ammeter and an ohm meter, from a single range analog panel meter and a single range digital panel meter.

ELEC210 Electronic Circuits

(3 credit, 2 lecture, 2 lab) [Pre- or corequisite: ELEC115]

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) [CSTC130]

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: ELEC115]

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.

ELEC251 Industrial Electrical Maintenance I

(2 credit, 1 lecture, 1 lab) [CSTC100 or ELEC111]

This course is for those who have an understanding of electrical basics and want to learn more about industrial motors and their controls. Included is a study of wiring symbols and diagrams, motors and controls, ladder logic and three-phase power.

ELEC252 Industrial Electrical Maintenance II

(2 credit, 1 lecture, 1 lab) [ELEC251]

This course builds on knowledge and skills taught in ELEC251 and is for students who possess a good understanding of basic industrial motor circuits. Included is a study of timing circuits, variable frequency drives, reduced voltage starting and troubleshooting and motor protection.

ELEC253 Industrial Electrical Maintenance III

(2 credit, 1 lecture, 1 lab) [ELEC252]

This course is an introduction to Allen-Bradley programmable controllers, their use, selection, setup and servicing. Students develop an understanding of the PLC, its logic functions, its installation, troubleshooting and network communication.

ELEC254 Industrial Electrical Maintenance IV

(2 credit, 1 lecture, 1 lab) [ELEC253]

This course builds on the skills taught in ELEC253 and is for students who possess a good understanding of Allen-Bradley programmable logic controllers. Students advance their skills

by using the PLC's in a simulated industrial environment, including the use of remote and analog I/O. Students also study, components, safety, maintenance and off-line computer programming.

ELEC263 Industrial Control Systems-Siemens

(4 credit, 2 lecture, 2 lab) [ELEC252]
This course emphasizes the use, selection, set up, and servicing of programmable logic controllers (PLCs), and provides experience in PLC logic functions, installation, programming, networking protocols, remote I/O, and troubleshooting PLC programs and installations. Extensive hands-on training is conducted using Siemens Simatic S7-300 PLC hardware and Siemens Simatic Step 7 programming software.

ENGLISH

ENGL100 Freshman English I

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171]
In this introduction to college-level writing, students learn to engage in the process of writing, produce written texts that communicate with a variety of audiences and develop critical thinking skills.

ENGL101 Freshman English II

(3 credit, 3 lecture, 0 lab) [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.

ENGL195 Introduction to Literature

(3 credit, 3 lecture, 0 lab) [Pre- or corequisite: ENGL100]
This course introduces students to text-based, reader-based and context-based interpretive strategies for the study of poetry, fiction and drama. Through lecture, discussion, interpretive and research-based writing and group project work, students learn the characteristics of each genre and the vocabulary of literary interpretation.

ENGL200 American Thought & Literature I

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]
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 & Literature II

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]
This course surveys late 19th century and 20th century American literature.

ENGL212 Oral Interpretation

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]
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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]
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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]
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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

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 (12-18). 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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

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, 3 lecture, 0 lab) [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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

The course is an introduction to the language, structure, history and narrative technique of film as a distinctive art form. Coursework 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) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

This course compares contemporary and classic examples of poetry to historically durable examples of structure and content.

ENGL280 Survey of Black American Literature

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

This is a chronological survey of Black American writing from 1760 to the present with emphasis on 20th-century poetry, fiction, drama and autobiography.

ENGL290 Women in Literature

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum reading score of 82 on COMPASS or DVED152 or DVED153 and minimum writing score of 71 on COMPASS or DVED171]

This course chronicles the contributions of female writers to the understanding of society, culture, and personal relationships. It exposes students to contemporary feminist criticism.

FRENCH

FREN120 Elementary French I

(4 credit, 4 lecture, 0 lab)

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 up to 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) [FREN120]

This course is a continuation of FREN120 Elementary French I.

GEOGRAPHY

GEOG102 Physical Geography/ Earth Science

(3 credit, 3 lecture, 0 lab)

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)

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.

GERMAN

GERM101 German I

(4 credit, 4 lecture, 0 lab)

This course is specifically designed to give students a thorough understanding of the German language. The course enables students to not only read and write German but also to actively listen to and understand, and to speak the language. Focus of the class is on vocabulary and grammar and primarily on pronunciation and expression. It is a blend of theory and practice. Teaching strategies used are lecture with discussion, small-group interaction, audio recognition and small video episodes.

GERM102 German II

(4 credit, 4 lecture, 0 lab) [GERM101]

This course is a continuation of GERM101 and will increase understanding of the German language. After becoming familiar with German pronunciation, grammar, and vocabulary throughout GERM101, emphasis in GERM102 will be on active usage of German in speaking and writing.

HISTORY

HIST250 United States History to 1865

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]

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 preoccupied 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 differences; 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) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]

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.

HIST252 The Civil War Era

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course focuses on the immediate Antebellum period. Early 19th century background gives way to a focus on the period from the Mexican War (1845-8) through Reconstruction and the end of military rule in the South by 1877. It is a detailed, in-depth study of a generation of conflict and the central event in our nation's history.

HIST253 Honors/Service Learning: Native American History

(3 credit, 3 lecture, 0 lab) (This service learning honors course is limited to 10 students with 3.0 GPA. Prior written approval by the instructor is required.)
This is a unique course that explores both the history and the contemporary experience of Native America. By combining reading, classroom discussion, lecture, guest speakers, video, student research, and volunteer experience, we attempt to gain a better understanding of the rich variety of Native American cultures. The course explores history, belief and value systems, customs and traditions and issues/challenges of the present day. While an effort is made to discover as much as possible about many different tribes, there is a focus on the Lakota Sioux people. The course includes a 10-day trip living and working (volunteering with Habitat for Humanity) on an Indian Reservation in South Dakota.

HIST255 Michigan History

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
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) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
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.

HUMANITIES

HUMN100 Western Culture

(4 credit, 4 lecture, 0 lab) [ENGL100]
This course examines the artistic, literary and philosophical development of Western culture over the past five millennia. Regular reading assignments provide a survey of political history and classroom presentations and expose students to examples of literature, music and the visual arts from each of the major periods.

HUMN200 Humanities I

(4 credit, 4 lecture, 0 lab) [ENGL100]
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) [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)
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.

HUMN271 Study Abroad

(3 credit, 3 lecture, 0 lab) [*Must have at least a 2.5 GPA and completed 30 semester hours or instructor's approval, and have two letters of reference.*]

Students experience living and studying in a foreign country, which enables them to learn about a different culture, geography, history, religion, economics and different business practices and ethics. It allows students the opportunity to become acquainted with different cities and countries and the way they are governed, and offers them the opportunity to conduct comparative studies with the United States. Students explore differences and commonalities through participation in activities and structured observation of their surroundings while abroad, including museums, historical sites, cultural events, architecture, and centers of religion, government, business and education.

INDUSTRIAL TECHNOLOGY

INDS100 Machine Tool Theory

(2 credit, 2.25 lecture, 0 lab)

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)

This course provides experience in programming Computer Numeric Control (CNC) systems used with machine tools. Students design parts using computer aided design software. The designs are transferred to CNC for production of the parts on a CNC mill.

INDS103 Industrial Maintenance

(3 credit, 2.25 lecture, 0.75 lab)

This course is designed to meet the needs of individuals pursuing the Millwright Apprentice Program. The course surveys areas of interest to the millwright and provides use of the millwright handbook. Students studying other disciplines within industrial technology will find the course valuable as well. Topics to be studied include: measurement, drawing and sketching, machinery/equipment use and installation, power transmission, structural steel, fasteners, plumbing, carpentry, electricity, hydraulics, and welding.

INDS104 Statistical Process Control

(1 credit, 1 lecture, 0 lab)

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)

This course includes a brief refresher on the basic statistical concepts learned in INDS104, 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.

INDS115 Plumbing/Pipefitting

(3 credit, 3 lecture, 0 lab)

This course is designed to meet the needs of individuals who desire an understanding of industrial/residential plumbing and/or pipefitting. The course will survey plumbing, fixtures, water supplies, drains and traps; pipe drawings, symbols and diagrams; types and uses of related materials; measurement and layout; threads, fittings, hangers and seals; conveying devices; reservoirs, reductions and increases in supply lines. The American National Standards (ANS) Industrial Pipe Code will be emphasized.

INDS120 Plastics Technology

(2 credit, 2.25 lecture, 0 lab)

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 credit, 2 lecture, 0 lab)

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 & Heat Treatment

(2 credit, 2.25 lecture, 0 lab)

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 are also covered.

INDS140 Technical Writing for Business & Industry

(3 credit, 3 lecture, 0 lab) [Minimum writing score of 71 on COMPASS or DVED171]

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.

INDS155A Industrial Safety

(1.5 credit, 1 lecture, 1 lab)

This course covers 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.

INDS155B Industrial First Aid

(0.5 credit, 0.5 lecture, 0.5 lab)

This five-week (16-hour) basic first aid course is taught by a certified American Heart Association instructor and provides successful students eligibility for AHA certification.

INDS220 Basic Machine Operation

(3 credit, 1 lecture, 3 lab)

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 credit, 1 lecture, 3 lab) [INDS220]

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.

INDS230 Introduction to Material Science

(3 credit, 3 lecture, 0 lab) [CHEM105 or PHYS230]

This course in power transmission equipment discusses the essential links between machines and their sources of driving power. This course discusses internal drum drives, bearings, chain drives, belts, conveyors, couplers, controls, gears, speed reducers and lubrication. Safety issues related to mechanical power transmission devices are included.

INDS240 Mechanical Power Transmissions

(2 credit, 2.25 lecture, 0 lab) [MATH110 and TDSN105]

This course in power transmission equipment discusses the essential links between machines and their sources of driving power. This course discusses internal drum drives, bearings, chain drives, belts, conveyors, couplers, controls, gears, speed reducers and lubrication. Safety issues related to mechanical power transmission devices are included.

INDS245 Conveyors

(2 credit, 2.25 lecture, 0 lab) [MATH110 and TDSN105]

This course acquaints the student with the terminology, basic structure and operation of conveyor systems. It includes detailed coverage of belts, belt cleaners, idlers, and feed/discharge devices, as well as an explanation of how to install, maintain, replace, and troubleshoot these components. Topics include: magnetic, belt, screw, vibratory, monorail, bucket and free conveyors. Safety issues related to conveyors are included.

INDS253 Basic Fluid Power

(3 credit, 2 lecture, 2 lab)

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 projects using specialized fluid power trainers.

INDS254 Advanced Hydraulics
(3 credit, 2 lecture, 2 lab) [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 projects using specialized hydraulic trainers.

INDS255 Advanced Pneumatics
(3 credit, 2 lecture, 2 lab) [INDS253]
The purpose of this course is to provide additional background in pneumatics. Topics include pneumatic valves, compressors, manometers, flow meters, vacuum systems, pneumatic motors, quick exhaust valves, air bearings and pneumatic system design. In addition, pneumatic symbols and formulas are stressed. Laboratory includes demonstrations and a series of projects on specialized pneumatic trainers.

INDS260 Manufacturing Processes
(2 credit, 0.5 lecture, 1.75 lab)
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.

INDS265 Industrial Problem Solving
(2 credit, 2 lecture, 0 lab) [ENGL100 or INDS140; MATH114 and PHYS101]
This course provides a framework for manufacturing technicians to systematically solve plant operating problems. The class includes exercises in problem solving techniques, team building skills and class projects. There is an introduction to process controls and process safety management.

INDS270 Industrial Quality Control
(3 credit, 3 lecture, 0 lab)
This course defines the changing quality concepts of modern-day industry and further defines quality organizations, quality management systems, quality costs, data collection, process control, customer relations and product reliability. The course encompasses an in-depth view of the theory and practical application of Statistical Process Control (SPC).

INDS271 ISO 9000
(3 credit, 3 lecture, 0 lab)
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, apprentice students and others desiring an understanding of modern quality standards.

INDS275 Basics of Vacuum Technology
(3 credit, 2 lecture, 2 lab) [INDS255 and MATH100]
This course is an introduction to high vacuum and ultra-high vacuum techniques. Vacuum pump operation and systematic vacuum leak detection are covered.

MATHEMATICS

MATH050 Mathematical Bridges
(2 credit, 2 lecture, 1 lab)
This course explores basic mathematical concepts including arithmetic, problem solving, number theory and algebra using whole numbers and fractions. Students experience these concepts through hands-on models and by using appropriate technology.

MATH060 Mathematics for Paramedics
(1 credit, 1 lecture, 0 lab)
This course provides the mathematical background necessary for paramedic students to calculate dosages.

MATH075 Transition to Algebra
(2 credit, 2 lecture, 1 lab) [MATH050 or minimum score of 36 in COMPASS Pre-Algebra placement domain]
This course prepares students for elementary algebra by experiencing concepts in rational and irrational numbers, percents, integers, unit conversion, rates of change, proportions and an introduction to variables and equations. Students experience these concepts using a problem

solving approach with hands-on models and appropriate technology.

MATH100 Elementary Algebra

(4 credit, 4 lecture, 1 lab) [MATH075 or minimum score of 44 in COMPASS Pre-Algebra placement domain]

This course explores beginning algebra concepts including linear equations and inequalities, quadratic equations and an introduction to functions through numerical, graphical and symbolic representations. Students experience these concepts using a problem solving approach with appropriate technology.

MATH100A Elementary Algebra, Part I

(2 credit, 2 lecture, 1 lab) [MATH075 or minimum score of 44 in COMPASS Pre-Algebra placement domain]

This course is the first half of MATH100 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 MATH100A and MATH100B to have the equivalent of MATH100. Students may not receive credit in both MATH100A and MATH100. This course is offered only in the fall semester.

MATH100B Elementary Algebra, Part 2

(2 credit, 2 lecture, 1 lab) [MATH100A]

This course is the second half of MATH100 Elementary Algebra. The topics covered include graphs, linear equations, systems of equations, inequalities, sets and quadratics. Students must complete both MATH100A and MATH100B to have the equivalent of MATH100. Students may not receive credit in both MATH100B and MATH100. This course is offered only in the spring semester.

MATH102 Mathematical Investigations

(4 credit, 4 lecture, 0 lab) [MATH100, or MATH100A and MATH100B, or a score of 34 in COMPASS Algebra placement domain]

This is a terminal course in mathematics intended to satisfy the mathematics general education requirement for students pursuing bachelor's degrees. Topics covered may include set theory, logic, voting methods, probability and statistics, finance, linear programming, modeling, graph theory, number theory and geometry.

MATH104 Intermediate Algebra

(4 credit, 4 lecture, 1 lab) [MATH100 or minimum score of 34 in COMPASS Algebra placement domain]

This course explores algebraic concepts including linear, quadratic, exponential and logarithmic functions using numerical, graphical, and symbolic representations; sequences; and systems of equations. Students experience these concepts using a problem solving approach with appropriate technology.

MATH104A Intermediate Algebra, Part 1

(2 credit, 2 lecture, 1 lab) [MATH100 or minimum score of 34 in COMPASS Algebra placement domain]

This course is the first half of MATH104, Intermediate Algebra. The topics covered include linear, quadratic, and exponential functions using numerical, graphical and symbolic representations. Students must complete both MATH104A and MATH104B to have the equivalent of MATH104. Students may not receive credit in both MATH104A and MATH104.

MATH104B Intermediate Algebra, Part 2

(2 credit, 2 lecture, 1 lab) [MATH104A]

This course is the second half of MATH104, Intermediate Algebra. The topics covered include zeros of functions, factoring, graph transformations, systems of equations and logarithms. Students must complete both MATH104A and MATH104B to receive the equivalent of MATH104. Students may not receive credit in both MATH104B and MATH104.

MATH110 Applied Algebra

(2 credit, 2.25 lecture, 0 lab) [Minimum score of 44 in COMPASS Pre-Algebra placement domain]

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.

MATH111 Applied Geometry

(2 credit, 2.25 lecture, 0 lab) [MATH110]

This course in plane geometry covers propositions and axioms, definitions, circles, area and angle formulas. Volumes from solid geometry are also covered.

MATH112 Applied Right Angle Trigonometry

(2 credit, 2.25 lecture, 0 lab) [MATH111]

This is a course in right triangle trigonometry as used in the machine trades. Right triangles and solving practical shop problems are emphasized.

MATH113 Applied Oblique Angle Trigonometry

(2 credit, 2.25 lecture, 0 lab) [MATH112]

This course details the use of oblique triangles and the trigonometry necessary to solve machine shop problems.

MATH114 Electronics Mathematics

(4 credit, 4 lecture, 0 lab) [MATH100 or MATH110]

This course provides the mathematical background necessary for the electronics in integrated manufacturing. It includes algebraic, geometric and trigonometric techniques applied to beginning electronics.

MATH120 Trigonometry

(3 credit, 3 lecture, 0 lab) [MATH104 or minimum score of 66 in COMPASS Algebra placement domain or 31 in College Algebra placement domain]

This course explores the development of the trigonometric functions. Topics included are radian and degree measures of angles, circular motion, graphing trigonometric equations and oblique triangles. Numerous applications associated with some topics are also explored. Students experience these concepts using a problem solving approach with hands-on models and appropriate technology.

MATH151 Mathematics for Elementary Teachers I

(4 credit, 3 lecture, 2 lab) [MATH100 or minimum score of 34 in COMPASS Algebra placement domain]

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 problem solving, set theory, systems of whole numbers, integers, rational and reals.

MATH152 Mathematics for Elementary Teachers II

(3 credit, 3 lecture, 1 lab) [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 problem solving and logic, real numbers, probability, statistics, plane and solid geometry, transformational geometry and computer applications.

MATH159 College Algebra

(4 credit, 4 lecture, 0 lab) [Pre- or corequisite: MATH120]

This course explores the concept of functions as models of change. Functions studied include linear, piecewise defined, quadratic, inverse, exponential, logarithmic, power, polynomial and rational. The functions are explored using symbolic, numerical, graphical and verbal representations. Other topics included are concavity, transformations of functions, compositions and combinations of functions and modeling. Numerous applications associated with some topics are also explored. Students experience these concepts using a problem solving approach with hands-on models and appropriate technology.

MATH190 Elementary Statistics

(3 credit, 3 lecture, 1 lab) [MATH100 or a minimum score of 34 in COMPASS Algebra placement domain]

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.

MATH250 Calculus and Analytic Geometry I

(4 credit, 4 lecture, 0 lab) [MATH120 and MATH159]

This course starts with a review of the functions needed in the study of calculus. The main topic of this course is differential calculus. Topics included are limits, differentiation, continuity, differentiability, optimization and modeling. In addition, definite integrals and theorems involving definite integrals will also be introduced. Numerous applications associated with some topics are also explored. Students experience these concepts using a problem solving approach with hands-on models and appropriate technology.

MATH251 Calculus and Analytic Geometry II
(4 credit, 4 lecture, 0 lab) [MATH250]
This course focuses mainly on integral calculus. Topics included are techniques of integration, applications of the definite integral, improper integrals, sequences and series, approximating functions and differential equations. Numerous applications associated with some topics are also explored. Students experience these concepts using a problem solving approach with hands-on models and appropriate technology.

MATH252 Calculus and Analytic Geometry III
(4 credit, 4 lecture, 0 lab) [MATH251]
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) [MATH250]
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.

MANAGEMENT & MARKETING

MGMT235 Small Business Management
(3 credit, 3 lecture, 0 lab)
This course covers the problems of starting and managing a business venture and includes contemporary management practices used by successful businesses.

MGMT237 Concepts of Management
(3 credit, 3 lecture, 0 lab) [Pre- or corequisite: CMIS101 and BUSN180 or ENGL100]
This course covers, in detail, the managerial process, including planning, organizing, leading and controlling. Other topics studied include the purposes of organizations and how they function, the business environment, human behavior, operations management and total quality management.

MGMT245 Human Resource Management
(3 credit, 3 lecture, 0 lab) [ENGL100]
This course focuses on the role of human resources management and its contribution to the organizational effort. Students examine human resources functions: strategic planning, recruiting and employment, compensation systems, employee training and development, labor laws, safety and health and benefits. This class uses both lecture and case study methods, with students working in groups.

MGMT250 Organizational Behavior
(3 credit, 3 lecture, 0 lab)
This course provides a background in human relations and behavior of individuals within an organizational environment, with emphasis on social and group influences.

MGMT275 Strategic Management
(3 credit, 3 lecture, 0 lab) [Instructor or counselor approval (see rubric)]
This course focuses on solving the problems of advanced general management. Students employ the concepts and techniques used by managers, and particularly senior managers, to make critical decisions for the future of their organizations. Techniques used include, but are not limited to, conducting external environment analyses, performing SWOT analyses and analyzing futurist information. This class uses the case study method with some lecture relative to strategic analysis. Students work in groups to analyze strategies employed by both successful and unsuccessful companies.

MRKT230 Marketing Research
(3 credit, 3 lecture, 0 lab)
This introduction to marketing research focuses on the completion of a marketing research project. Students demonstrate the ability to formulate problems, select research designs, collect information, analyze information and create reports.

MRKT233 Principles of Marketing
(3 credit, 3 lecture, 0 lab)
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.

MRKT234 Retailing
(3 credit, 3 lecture, 0 lab)
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)
This course examines the role of advertising in society, the creation and planning of advertising and effective promotional activities.

MUSIC

MUSI100 Fundamentals of Music
(3 credit, 3 lecture, 0 lab)
This course covers development of the 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.

MUSI101 Music Appreciation
(3 credit, 3 lecture, 0 lab)
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)
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, 1.5 lab)
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, 1.5 lab) [MUSI141]
This class is a continuation of MUSI141.

MUSI143 Voice Improvement III
(1 credit, 0 lecture, 1.5 lab) [MUSI142]
This class is a continuation of MUSI142

MUSI144 Voice Improvement IV
(1 credit, 0 lecture, 1.5 lab) [MUSI143]
This class is a continuation of MUSI143.

MUSI191 Choir I
(1 credit, 0 lecture, 2 lab) [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) [MUSI191]
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) [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) [MUSI195]
This course is a continuation of MUSI195. The band performs at various concerts and community programs throughout the school year.

MUSI293 Choir III
(1 credit, 0 lecture, 2 lab) [MUSI192]
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 with small vocal ensembles.

MUSI294 Choir IV
(1 credit, 0 lecture, 2 lab) [MUSI293]
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 with small vocal ensembles.

MUSI297 Instrumental Ensemble III
(1 credit, 0 lecture, 2 lab) [MUSI196]
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) [MUSI297]
This continuation of MUSI297 is for instrumentalists with previous band experience. The band performs throughout the academic year.

NURSING

NURS101 Fundamentals of Nursing Care
(5 credit, 2 lecture, 6 lab)
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 Care of the Adult Client I
(6 credit, 2 lecture, 8 lab)
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)
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) [BIOL203, ENGL100, MATH100]
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)

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.

NURS121A Introduction to Communication Concepts in Nursing

(1.5 credit, 1.5 lecture, 0 lab)

This course is designed to help students become more efficient practitioners of the communication skills that are essential to nursing. Students also explore the many ways that nurses use communication to facilitate care for the client. Students practice interviewing skills and observe, discuss and begin to develop therapeutic communication skills. Reporting and recording skills will be based on the nursing process.

NURS121B Introduction to Computer Concepts in Nursing

(0.5 credit, 0 lecture, 1 lab) [CMIS100]

This course teaches students the fundamentals and introductory skills necessary to adequately use Microsoft Windows and Word programs.

NURS126 Nursing Issues and Trends

(0.5 credit, 0.5 lecture, 0 lab)

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 students in learning methods to make a successful transition from student to practitioner.

NURS146 Nursing Care of the Childbearing Family

(3 credit, 1.5 lecture, 3 lab)

This introductory course stresses the fundamentals of reproductive health and maternal/newborn care. Utilization of the nursing process in the planning of care is incorporated into the discussion of reproductive wellness and illness, normal pregnancy and childbirth and infant care. The family experience is emphasized including the influence of culture diversity.

NURS147 Nursing Care of Children

(3 credit, 1.5 lecture, 3 lab)

The primary focus of this introductory course is assisting children to attain an optimal state of wellness, taking into consideration their individual strengths and weaknesses. The use of the nursing process in planning 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.

NURS164 Pharmacology in Nursing I

(1 credit, 1 lecture, 0 lab)

This is the first of two courses on pharmacology and nursing. This course presents the basic concepts and principles of pharmacology. Lifespan, legal, ethical and cultural considerations are included. Basic mathematical principles and equivalents are discussed and used in dosage calculation. Patient education related to pharmacology is addressed. Basic medication administration techniques are reviewed. Drugs affecting the Central Nervous System are discussed. The nursing process and nursing responsibilities in drug therapy are emphasized throughout the course.

NURS165 Pharmacology in Nursing II

(1 credit, 1 lecture, 0 lab)

In this second course on pharmacology and nursing, various drug groups are discussed. Drug actions, interactions and the effects on the body are addressed. A body systems approach is used based on previous knowledge gained from anatomy and physiology, fundamentals of nursing, math and NURS164. Teaching points to include for each drug group are included. Lifespan considerations are discussed with each group. Legal, ethical and cultural considerations in drug therapy are addressed. The nursing process and nursing responsibilities in drug therapy are integrated throughout

the course. Safe administration of medication is emphasized.

NURS200 Role Transition

(2 credit, 2 lecture, 0 lab)

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 students 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)

This course introduces students 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 dysfunction in a wide variety of settings, is discussed. Students work with clients in a mental health center, substance abuse center, and/or a hospital setting. Content is focused on helping students enhance their understanding of human behavior during both sickness and health and to acquire skills in interpersonal relationships and communication, as well as assessment and intervention for many mental health issues.

NURS246 Advanced Nursing Care of the Childbearing Family

(3 credit, 1.5 lecture, 3 lab)

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 students for a holistic approach to care. Although 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)

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 Nursing Care of the Adult Client

(10 credit, 4 lecture, 12 lab)

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 theory learned in prerequisite courses and enables students to apply previously learned knowledge and skills.

NURS257 Leadership and Management

(3 credit, 1 lecture, 4 lab)

This course assists students to successfully 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 students, 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)
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 quantitative and qualitative research is addressed.

PHYSICAL EDUCATION

PHED101 Golf
(1 credit, 0 lecture, 2 lab)
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)
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)
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, 1 lab)
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)
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)
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)
This course teaches the fundamental principles of cross country skiing, including 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)
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)
This general course develops skills and techniques in various country and folk dances.

PHED110 Introduction to Physical Fitness
(1 credit, 1 lecture, 1 lab)
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)
This course teaches the basic kicks, punches and blocks of karate.

PHED112 Karate II
(1 credit, 0 lecture, 2 lab)
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)
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)
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, 0.5 lecture, 1 lab)
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)
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)
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)
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)
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)
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.

PHED121 Advanced Tennis
(1 credit, 0 lecture, 2 lab)
This continuation of PHED120 allows participants to advance basic tennis skills.

PHED122 Beginning Skiing
(1 credit, 0 lecture, 2 lab)
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)
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)
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)
This course introduces the basic principles of the sport of Judo. Student trace 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. Students experience 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)
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) [PHED128]
This course is the advanced instruction of Tae Kwon Do. In addition to rehearsing kicks, blocks, punches and basic patterns, students

learn 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)
This course includes the basic swimming strokes: 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) [PHED130]
This course improves the swimmer's skill in the basic 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) [15 years of age minimum & PHED131]
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) [17 years of age minimum & PHED131]
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)
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)
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)
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 & Rescue Diving
(2 credit, 1 lecture, 2 lab)
This course provides theory and practical application in advanced and open water rescue diving.

PHED144 Fitness Walking
(1 credit, 0.5 lecture, 1 lab)
This course helps students improve their fitness levels through vigorous walking. Each student develops a personalized, healthy lifestyle plan which integrates exercise, diet and stress management.

PHED150 Pilates
(1 credit, 0 lecture, 2 lab)
This course is designed to help students utilize a mind-body exercise and become knowledgeable in muscles and their relationship to movement and to develop organizational skills to create a personal Pilates program.

PHED160 Fundamentals of Climbing
(1 credit, 0.5 lecture, 1 lab) [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, 0.5 lecture, 1 lab) [Liability waiver & PHED160]
This course is a continuation of PHED160.

PHED210 Sports Officiating
(1 credit, 0 lecture, 2 lab)
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)
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.

PHILOSOPHY
PHIL220 Introduction to Philosophy
(3 credit, 3 lecture, 0 lab)
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) [ENGL100]
This course is a survey of world religions and related philosophies. The exploration of thought, belief and religious practices from diverse cultures provides an opportunity to appreciate the uniqueness of other traditions while drawing upon the universal experience of the inner person. In addition, this study includes an inquiry of global pursuits in understanding the purpose of life, the quest for truth, the search for reality and the experience of spirituality.

PHIL222 Bioethics
(3 credit, 3 lecture, 0 lab)
This course covers some of the major ethical theories, principles and approaches that affect life in the 21st Century, with a focus on decision making processes in the biological or health care related fields.

PHYSICAL SCIENCE
PHYS101 Physical Science
(4 credit, 3 lecture, 2 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; minimum writing score of 71 on COMPASS or DVED171; minimum math score of 36 on COMPASS Pre-Algebra or DVED163 or MATH075]
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)
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) [PHYS111]
This course covers thermodynamics, electricity and magnetism, optics and modern physics. This course is normally offered only in spring semesters.

PHYS230 College Physics I
(4 credit, 4 lecture, 2 lab) [MATH120]
This course covers concepts of light, force, motion and energy.

PHYS231 College Physics II
(4 credit, 4 lecture, 2 lab) [PHYS230]
This continuation of PHYS230 covers fluids, elasticity of matter and membranes, sound, electromagnetism, quantum theory and radioactivity.

POLITICAL SCIENCE
POLI110 Introduction to Social Science I
(4 credit, 4 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; Pre- or corequisite: ENGL100 or DVED171]
This is an interdisciplinary and comparative introduction to the study of human beings and their efforts to adapt and function successfully in a dynamic global environment. Emphasis is placed on American social, economic and political institutions. Historical and geographical background, as well as exploration of the methods and approaches commonly used in the social sciences will catalyze an appraisal of

present day American society and how it compares with other societies around the globe. The primary focus is on government and politics, the economy, international relations and the philosophies/ideologies that underlie them.

POLI240 American Political System

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
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)
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 is recommended.

PSYCHOLOGY

PSYC120 General Psychology

(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course familiarizes beginning students with the basic concepts and methods used by psychologists to study human behavior. Subjects covered include research design, the biological basis of behavior, developmental psychology, sensation, perception, consciousness, learning, memory, thinking, social psychology, personality and mental disorders.

PSYC221 Child Psychology

(3 credit, 3 lecture, 0 lab) [PSYC120]
This course examines the field of child development and child psychology. Topics covered include prenatal and physical development, the interaction of heredity and environment, cognitive development, social influences upon development, emotional development, family and peer influences upon development and the development of morality and ethical behavior.

PSYC223 Psychology of Sex & Gender

(3 credit, 3 lecture, 0 lab) [PSYC120]
This course explores historical views of gender and sexual behavior, the psychological construction of gender, gender-based cultural expectations, human sexual behaviors and biological sex differences. Emphasis is on the psycho-social, emotional and behavioral differences between men and women. In addition, the course explores the impact these differences have upon the individual and society. The dynamic interaction between the concepts of society, sexuality and gender roles are also explored.

PSYC225 Abnormal Psychology

(3 credit, 3 lecture, 0 lab) [PSYC120]
This course covers the definition, description, measurement, diagnosis, causes, treatment and prevention of abnormal behavior. Biological, psychosocial and sociocultural perspectives are reviewed.

SOCIOLOGY

SOCI111 Introduction to Social Science II

(4 credit, 4 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153; Pre- or corequisite: ENGL100 or DVED171]
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.

SOCI230 Sociology
(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course familiarizes beginning students with the basic concepts and methods used by sociologists to study society. It includes culture, social structure, social class, institutions, deviance and social change emphasizing the application of the sociological perspective in analyzing society and human behavior.

SOCI235 Social Problems
(3 credit, 3 lecture, 0 lab) [Minimum reading score of 82 on COMPASS or DVED152 or DVED153]
This course focuses on the sociological approach to social problems including mental illness, crime, poverty, family and community disintegration, violence, ecology and current events.

SOCI271 Study Abroad
(3 credit, 3 lecture, 0 lab) [Must have at least a 2.5 GPA and completed 30 semester hours or instructor's approval, and have two letters of reference.]
Students experience living and studying in a foreign country, which enables them to learn about a different culture, geography, history, religion, economics and different business practices and ethics. It allows the students the opportunity to become acquainted with different cities and countries and the way they are governed, and offers them the opportunity to conduct comparative studies with the United States. Students explore differences and commonalities through participation in activities and structured observation of their surroundings while abroad, including museums, historical sites, cultural events, architecture, and centers of religion, government, business and education.

SPANISH
SPAN130 Elementary Spanish I
(4 credit, 4 lecture, 0 lab)
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) [SPAN130]
This course in a continuation of SPAN130 Elementary Spanish I.

TECHNICAL DRAFTING & DESIGN
TDSN100 Technical Drafting
(4 credit, 2 lecture, 2 lab)
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.

TDSN103 Industrial Communications
(2 credit, 2 lecture, 0 lab) [Pre- or corequisite: CMIS101]
This course incorporates the basic principles associated with industrial communications including graphical, oral, and written techniques. It stresses the essentials of writing and speaking in various drafting situations.

TDSN105 Reading Engineering Drawings
(2 credit, 0.5 lecture, 1.75 lab)
This technical blueprint-reading course, with practical applications, is structured around a workbook approach to learning. Topics include basic projection of views, lines, reading scales, sketching, isometric and oblique projection, sections, perspectives, threads, title blocks, stock lists and interpreting blueprints. This course also contains a brief introduction to geometric dimensioning and tolerancing (GD&T).

TDSN106 Layout and Precision Measurement
(2 credit, 0.5 lecture, 1.75 lab) [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 fits between mating parts, measuring instruments, gages, mechanical comparators, inspection of dimensions in layout, and CMM. Students are required to check manufactured parts against part prints with precision measuring devices.

TDSN110 Descriptive Geometry

(3 credit, 1 lecture, 4 lab) [TDSN100]

This course uses a workbook approach to develop fundamental spatial and visualization skills necessary for understanding and applying information on technical drawings. Topics include projection of points, lines, and planes; revolution of objects; intersection of planes and solids; and projection of oblique and true view surfaces. Drawings are created using CAD. Prior and recent CAD knowledge would be an asset in this course.

TDSN125 Geometric Dimensioning & Tolerancing

(2 credit, 0.5 lecture, 1.75 lab) [TDSN105]

This technical course is structured around a workbook approach to learning. The principles of geometric dimensioning and tolerancing will be applied to reading blue-prints and engineering drawings. The most current industrial standards will be referenced (ANSI/ASME Y14.5M-1994). Topics of study include the following geometric tolerances: form, profile, location, orientation, and runout. The specific tolerances covered are concentricity, circularity, straightness, parallelism, flatness, cylindricity, position, perpendicularity, angularity, circular runout, total runout, profile of a surface, profile of a line, and symmetry. Other areas of study are datums, datum targets, the interpretation of fits, limits and tolerances, and tolerancing for the location of features.

TDSN130 Technical Drafting II

(3 credit, 1 lecture, 4 lab) [TDSN100]

This course uses knowledge and skills learned in TDSN100. Students refine their skills and enhance their technical drawing abilities in this course. The following topics are covered: dimensioning, English and SI (metric) tolerancing, threads, fasteners, springs, and representation of screws, nuts, bolts, dowels, and detailing of assembly drawings. Drawings are created using CAD. Prior and recent CAD knowledge would be an asset in this course.

TDSN135 Tool & Die Design I

(2 credit, 2.25 lecture, 0 lab) [TDSN100 or TDSN103]

This theory course is structured primarily for tool-and-die apprentice students. Lecture topics include: dies and die types, presses and press accessories, blanking and piercing dies, die life, die blocks, die sets, die materials and material utilization, and fundamental die accessories. Emphasis is on drop-through blank dies.

TDSN136 Tool & Die Design II

(2 credit, 2.25 lecture, 0 lab) [TDSN135]

This theory course is structured primarily for tool-and-die apprentice students. This course emphasizes the theory associated with sheet metal progressive draw dies. Lecture topics include: how to select a die, conventional progressive dies, progressive transfer dies, carbide progressive dies, electrical discharge machining (EDM) and progressive dies, press selection and press accessories, grinding operations, cam slides, notch stations, draw and redraw stations, stops, sensors, and die protection. This course also investigates the components, knowledge, and review of tool-and-die standardized components and catalogs.

TDSN138 Tool & Die Design III

(2 credit, 0.5 lecture, 1.75 lab) [TDSN136]

This design course is structured primarily for tool-and-die apprentice students. It is the first half of the laboratory application component for TDSN135 and TDSN136 and should be taken after completing TDSN136. Lectures are followed by laboratory sessions that consist of developing sheet metal die components. Emphasis is on application of design ideas and being able to communicate design ideas graphically. Topics include basic tools, dies and punches; blanking force and standard die sets and die components with emphasis on progressive dies.

TDSN139 Tool & Die Design IV

(2 credit, 0.5 lecture, 1.75 lab) [TDSN138]

This design course is structured primarily for tool-and-die apprentice students and is ideal for tool-and-die journeyman with several years in the trade who wish to update their skills. It is the second half of the laboratory application component for TDSN135 and TDSN136 and should be taken after completing TDSN138. Emphasis is on application of design ideas related to sheet metal dies and being able to communicate appropriate design ideas graphically. Topics include development of a process flowchart, progression of dies, development of draw and flange stations, press cushions and air pins, horizontal cams, and knowledge of tool-and-die standardized components and catalogs.

TDSN140 Plastic Mold Design I
(2 credit, 0.5 lecture, 1.75 lab) [TDSN100 or TDSN103]
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. Drawings are created using CAD. Prior CAD knowledge would be an asset in this course.

TDSN141 Plastic Mold Design II
(2 credit, 0.5 lecture, 1.75 lab) [TDSN140]
This course is a continuation of TDSN140.

TDSN142 Plastic Mold Design III
(2 credit, 0.5 lecture, 1.75 lab) [TDSN141]
This course is a continuation of TDSN141.

TDSN215 Product Design
(3 credit, 2 lecture, 3 lab) [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. Drawings are created using CAD. Prior and recent CAD knowledge would be an asset in this course.

TDSN230 Jig & Fixture Design
(3 credit, 1 lecture, 4 lab)
This course focuses on the design of indexing jigs and milling fixtures. Use of standard components from various catalogs is also emphasized. Drawings are created using CAD. Prior and recent CAD knowledge would be an asset in this course.

TDSN250 Introduction to CAD
(4 credit, 2 lecture, 2 lab) [CMIS101 and TDSN100]
This course is designed to introduce students to the operation of CAD software and reinforce drafting and design standards. Students learn the basic functions of CAD software including commands and toolbars. Students demonstrate the ability to create two-dimensional drawings and manipulate and edit geometric shapes.

TDSN251 Advanced CAD
(4 credit, 2 lecture, 2 lab) [TDSN250]
This course is designed to develop technical skills in solid modeling with an introduction to parametric modeling technology. Students are taught the techniques that enable them to customize menus, screens, and develop personal time-saving production routines commonly found in industry. Advanced drafting concepts are also included in this course.

THEATER

THEA261 Drama as a Performing Art
(3 credit, 2 lecture, 2 lab)
This course provides experience in all aspects of play production. Students learn acting skills, script analysis and all other details of bringing a play "from the page to the stage." Students present performances for the public as well as area students.

THEA262 Drama as a Performing Art II
(3 credit, 2 lecture, 2 lab) [THEA261]
This course is a continuation of skills developed in THEA261. This course provides experience in all aspects of play production. Students learn acting skills, script analysis and all other details of bringing a play "from the page to the stage." Students present performances for the public as well as area students.

THEA263 Drama as a Performing Art III
(3 credit, 2 lecture, 2 lab) [THEA262]
This course is a continuation of skills developed in THEA262. This course provides experience in all aspects of play production. Students learn acting skills, script analysis and all other details of bring a play "from the page to the stage." Students present performances for the public as well as area students.

THEA264 Drama as a Performing Art IV
(3 credit, 2 lecture, 2 lab) [THEA263]
This course is a continuation of skills developed in THEA263. This course provides experience in all aspects of play production. Students learn acting skills, script analysis and all other details of bringing a play "from the page to the stage."

Students present performances for the public as well as area students.

WELDING

WELD101 Fundamentals of Welding

(3 credit, 1.5 lecture, 1.5 lab)

This course is the cornerstone for all subsequent welding courses offered at MCC. Students are introduced to various welding and cutting processes and theory as well as basic metallurgy, electrical theory and the safe handling and use of compressed gases. The main goal of the course is to establish a solid base of understanding of welding and cutting and to familiarize students with our lab and its equipment. Safety is strongly emphasized. Expect to evenly divide your time between the classroom and the lab.

WELD111 Welding Processes I

(3 credit, 1.5 lecture, 1.5 lab) [Pre- or corequisite: WELD101]

In Welding Processes I, the main emphasis is increasing a student's understanding and welding skill level in the area of Shielded Metal Arc Welding (stick) and Gas Tungsten Arc Welding (TIG). Students expand their understanding of the theory as well as the application of both processes. Lab weldments include, but are not limited to, ferrous and nonferrous metals, various thicknesses and some out of position welding. Understanding the processes and the consumables will be strongly emphasized. Students can expect to spend 60 to 90 minutes a week in the classroom in lecture/discussion.

WELD113 Welding Processes II

(3 credit, 1.5 lecture, 1.5 lab) [Pre- or corequisite: WELD101]

In Welding Processes II, Gas Metal Arc Welding (MIG) and Fluxed Cored Arc Welding are the focus processes. A strong emphasis is placed on understanding the processes, power sources, filler materials, gases used and material being welded on. Students can expect to weld on a variety of thicknesses in various positions and to spend 60 to 90 minutes a week in the classroom in lecture discussion.

WELD131 Welding Processes III

(3 credit, 1.5 lecture, 1.5 lab) [WELD111]

Welding Processes III is our advanced Shielded Metal Arc Welding / Gas Tungsten Arc Welding course. It is expected that students signing up for this course have a solid understanding in the process theory and basic application of the SMAW and GTAW processes. Metallurgy, filler metals, gases, square wave and pulse technology as well as other process / career pertinent information will be discussed. Students can expect to weld on various thicknesses of plain carbon steels, tool steels and various nonferrous metals in the flat, vertical, horizontal and overhead positions. Students should also expect to spend 60 - 90 minutes per week in the classroom.

WELD133 Welding Processes IV

(3 credit, 1.5 lecture, 1.5 lab) [WELD113]

Welding Processes IV is our advanced Gas Metal Arc Welding / Fluxed Cored Arc Welding course. It is expected that students signing up for this course have a solid understanding in the process theory and basic application of GMAW /FCAW. Metallurgy, filler metals, shielding gases as well as other process / career pertinent information will be covered. Lab assignments consist of a variety of weldments done in a variety of position both single and multi pass. Students should also expect to spend 60 to 90 minutes per week in the classroom.

WOMEN'S STUDIES

WMST100 Introduction to Women's Studies

(3 credit, 3 lecture, 0 lab)

This course familiarizes beginning students with the basic concepts and theories of feminist thought central to the growing field of Women's Studies. Students examine how traditional gender roles have affected women's lives throughout history both publicly (discussing issues such as women in the workplace, women and the law, and women and medicine) and privately (discussing issues such as women and gender stereotypes, women and their bodies, women and religion, and race and gender).

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Full-time Faculty

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DeLong, Kenric; M.A. .....Social Sciences
Eady, Amy; B.S. .....Medical Assistant
Fatka, Jim; M.A. ..... Language Arts
Fokens, Charlotte; Ed.D., L.P.C. ..... Counselor
Gibson, Michelle; Ph. D. .....Biology
Haverdink, Lisa; B.S.N., M.S.N. .....Nursing
Hoople, Janis; M.A. ...Computer Information Systems
Johnson, Carolyn; B.A. .....Visual Arts
Lincoln, Karen; R.N., M.S.N. .....Nursing
Long, Daniel; M.A. .....Mathematics
Lucka, James; M.A., L.P.C. ..... Counselor
Mowatt, Bertha; R.N., M.S.N. ..... Health Occupations
Olger, Kristen; M.A.....CIS Lab Coordinator
Palmer, Alec; M.A. ..... Electronics
Peacock, James; M.S. ..... Criminal Justice
Roy, Janice; M.A. .....Mathematics
Seaman, Michael; M.A. .....Social Sciences
Skogseth, Greta; M.A. ..... Language Arts/Humanities
Smith, Scott; M.A. .....Chemistry
Snook, Daniel; M.A. ..... Developmental Education
Snyder, Jessica; M.S. ..... Psychology
Vander Mark, Valerie; M.A. .....Performing Arts
Wesp, Heather; M.A. ..... Biology

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 Higher Learning Commission of 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 program 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.

ARTICULATION refers to a written agreement providing approval for college credit to be awarded for coursework previously completed at another institution such as a high school, career center or college.

ASSOCIATE DEGREE is a planned degree program of at least 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 at least 120 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 associates degrees and certificates and offer a variety of non-degree learning experiences. Programs include liberal arts, occupational studies, 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.

DEVELOPMENTAL LAB is where students develop basic reading, math and language-usage skills.

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 may be requested by students when they 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 session begins in June.

SEMESTER HOUR is a 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.

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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CALENDAR

2009 Fall Semester
Classes begin.....August 22
Classes end.....December 18

2010 Spring Semester
Classes begin.....January 11
Classes end.....May 7

2010 Summer Session *(tentative)*
Classes begin.....June 9
Classes end .....August 1

2010 Fall Semester *(tentative)*
Classes begin.....August 21
Classes end.....December 17

2011 Spring Semester *(tentative)*
Classes begin.....January 10
Classes end.....May 6

2011 Summer Session *(tentative)*
Classes begin.....June 6
Classes end .....July 29

Some classes may not follow the regular semester schedule. Check the schedule booklet or visit www.montcalm.edu each semester for exceptions.

For information call: (989) 328-2111,
toll-free: 1-877-328-2111 or
e-mail: admissions@montcalm.edu.

The material in this catalog applies to the 2009-2011 academic years and reflects information available at publication in February 2009. 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.

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