

GENERAL INFORMATION

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WELCOME TO MCC



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.

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

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

About MCC

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

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

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

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

The college has enjoyed a long history of accreditation by the Higher Learning Commission of the North Central Association of Colleges and Schools, 30 N. LaSalle St., Suite 2400, Chicago, IL 60602, 312-263-0456.

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

The Mission

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

The Goals

PROVIDING OPPORTUNITIES FOR LIFELONG LEARNING

- ❖ Providing general education that will improve student knowledge and understanding in a wide range of disciplines common to liberal arts education.
- ❖ Assisting students in overcoming deficiencies and acquiring skills fundamental to further academic, career and personal achievement.
- ❖ Providing continuing education services for those seeking professional development and credentialing.

About MCC

- ❖ 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 will be provided offering a firm grasp of the basic areas of knowledge: communication skills, social science, natural science and humanities. In addition to this basic core of learning, a series of electives will permit students to explore areas of special interest. It is expected that students who complete two years of academic study will have an understanding of how knowledge is gained in the various academic disciplines and will possess the skills to become a lifetime learner.
2. For applied science students, a high degree of occupational competence at the skilled or semiprofessional level should be

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

3. For all students, an opportunity to explore both academic and occupational studies while still qualifying for an associate degree will be provided. Where educational goals are not aimed specifically at transfer to a four-year college or at a skill specialty, students may enjoy greater flexibility in planning their programs of study along lines of varied interest.
4. For non-degree, non-certificate students, the opportunity to study for increased understanding, for greater job skill or for other personal reasons without reference to formal, prescribed educational pursuits is encouraged.

In all cases, MCC students will be expected to pursue a chosen course of study with enthusiasm and the best effort of which they are capable at all times. Students and their instructors should approach the learning 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 ASSET (pen/paper based) or COMPASS (computer-based) assessments assist advisors in determining appropriate course placement, including placement in basic academic skills development courses. Many courses require minimum performance levels on the ASSET or COMPASS assessments as a prerequisite to enrollment.

The ASSET or COMPASS assessment must be taken prior to enrolling in specific courses. Assessment schedules are available in the Enrollment Services Office. The following individuals may not be required to participate in

the ASSET or COMPASS assessment: 1) those who have previously completed the ASSET/COMPASS assessment. (Students transferring assessment scores from another institution must provide a copy of the results.), 2) those holding a bachelor or higher degree, 3) senior citizens (60 years of age and older), 4) those who audit a course that requires testing, and 5) those who obtain a waiver from the course instructor.

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.

Basic Academic Skills Development

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

The Guarantee

FOR TRANSFER CREDIT OF ACADEMIC AND CAREER COURSES AND FOR JOB COMPETENCY

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

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

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

THE DEGREE

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



*About
MCC*

THE 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.

THE 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 counselor, with the advice of appropriate teaching faculty, will develop an educational plan which specifies the courses constituting the 16 credit hours of further retraining.

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

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

The graduate or the employer will bear the cost of books, supplies, uniforms, transportation, insurance and other related items. The college will waive tuition and fees.



ADMISSION

Admission Policy

Applicants for admission to degree or certificate programs must possess a high school diploma or GED certificate or meet the requirements of the college's ability to benefit policy. Admission to the college does not guarantee admission to academic programs which have specific entry requirements.

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

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

Admission Application

Application for Admission forms are available from Enrollment Services, area high school counseling offices and the MCC website at www.montcalm.edu. There is no application fee.

Prospective students should submit a completed Application for Admission form to MCC's Enrollment 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's Enrollment Services.

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. A student may not attend as a guest for two consecutive semesters.

International Students

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

Ability to Benefit Policy for Non-High School Graduates

Applicants without a high school diploma or GED whose high school class has graduated may enroll 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.

petitioning procedures and issues related to transfer, both into and out of an institution. Academic advising is a collaborative effort between the counselor and the student, who is expected to participate in the advising process, and to read the catalog, the course schedule and other pertinent college materials. Students are encouraged to meet with a counselor prior to registering, but are required to do so before their second enrollment at MCC.

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; and
- ❖ register for classes.

New Student Orientation

Orientation is a key element to student success. Students learn strategies that assist them in acclimating to post-secondary education and in knowing 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 their second enrollment. 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 attend. Orientation is available on campus or on-line via the Internet.

Academic Advisement

Licensed professional counselors 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,



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 of Arts, Science or Liberal 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. Presenta-

tion of 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 col-



leges 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, prior to transfer.

- 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.
ENGL195, ENGL200, ENGL201,
ENGL212, ENGL220, ENGL221,
ENGL265, FREN120, FREN121,
GERM101, GERM102, HUMN100,
HUMN200, HUMN201, HUMN270,
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, MATH104,
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,
PSYC120, PSYC221, PSYC225, SOCI111,
SOCI230 or SOCI235

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

Other Credit Options

CORRESPONDENCE COURSES

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

CREDIT OR WAIVER BY EXAMINATION

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

- a. *Credit by examination:* After enrolling in a course and successfully completing the exam, students are awarded an S grade and full credit for the course. Financial aid does not pay for credits earned by exam.

- b. *Waiver by examination:* Upon successful completion of the exam, the requirement for taking that course will be waived and a \$5-per-credit-hour examination fee will be charged. This is only available for a specific course once and is not available for a course in which a student has already received a grade. If the waiver is approved 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.

COLLEGE LEVEL EXAMINATION PROGRAM CREDIT (CLEP)

MCC students who have taken part in the College Level Examination Program (CLEP) 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 credit, students must submit an official transcript of the test results to the Enrollment Services Office. The appropriate instructional administrator will evaluate the examination results and any credit granted will be noted on the student's transcript.

ADVANCED PLACEMENT CREDIT

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

Students must present a certificate indicating a test score of three or above to the Director of Enrollment Services. The appropriate instructional administrator will evaluate the test results and determine suitable credit to be given. Students will pay \$5 per credit hour 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.

To receive credit, students must maintain a B average in the articulated program and submit a written recommendation from the appropriate high school instructor to MCC Enrollment Services. Credit is granted when students complete six credits of MCC course work with a C average, subject to the terms of the articulation agreement. The student must notify the Director of Enrollment Services of the completion of these requirements to have the articulated credit noted on their transcripts. A maximum of 16 credits can be earned this way. There is no charge for the credit hours granted.

Students must enroll at MCC and take the appropriate courses no later than the beginning of the third year following high school graduation. Credit is awarded through notation (no grade is given) upon completion of the requirements. Credits articulated from high school to MCC may or may not transfer beyond MCC, at the discretion of the receiving institution.

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 course work 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.

MCC District Residents

Tuition \$57 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 \$87 per credit hour

Out-Of-State Residents

Tuition \$111 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 \$4 per credit 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 aged 60 or older who live in the MCC district may take MCC credit courses tuition free. Seniors who live outside the MCC district may take MCC credit courses for the difference between the in-district and non-district rates. Seniors are not required to pay activities fees. Seniors using this scholarship will not receive a student I.D. card.

Refund Policy

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

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% 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 will accept Visa, Discover and MasterCard.
3. Students who will receive financial aid through the college must present a form from the Financial Aid Office to the 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:

FACTS Tuition Management payment plan (www.montcalm.edu/facts)

FACTS offers a convenient monthly budget plan. FACTS gives you two options for making monthly payments: automatic bank payments or charge payments to your Visa or MasterCard.

FACTS is not a loan program. There is no debt incurred, no credit search and no interest or finance charge assessed by FACTS on the unpaid balance. FACTS charges a \$25 per semester non-refundable enrollment fee.

Financial aid will count towards down payment.

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

FINANCIAL AID

Application for Financial Aid

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

Information about all forms of financial aid is available in the Financial Aid Office or by visiting the MCC website at www.montcalm.edu. Entering freshmen are encouraged to submit a financial statement and application as early as possible in their senior year of high school. For maximum award consideration, all information should be submitted by first-time freshmen by February 15 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
- ❖ Proof of high school graduation or equivalent
- ❖ Financial aid transcripts from all colleges or universities previously attended
- ❖ Student Aid Report and necessary documentation to complete verification
- ❖ Proof of residency for Michigan financial aid recipients
- ❖ Release to transfer aid to student account
- ❖ Verification of Attendance Form
- ❖ Copy of social security card
- ❖ Financial aid award letter

Loan Default Policy

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

Enrollment Status

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

Method and Frequency of Financial Aid Payments

Money from all grants will be transferred to student accounts no earlier than one week after the drop/add period.

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

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

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

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

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.

DEPENDENT STUDENTS

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

Tuition and fees (based on in district, full time)	\$ 1,632
Room and board	\$ 3,258
Books and personal	\$ 1,328
Travel	\$ 1,159
Technology Fee	\$ 112
TOTAL	\$ 7,489

INDEPENDENT STUDENTS

Tuition and fees (based on in district, full time)	\$ 1,632
Room and board	\$ 8,656
Books and personal	\$ 2,512
Travel	\$ 1,159
Technology Fee	\$ 112
TOTAL	\$14,071

Change of Address or Financial Circumstance

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

Citizenship and Residency Requirements

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

Types of Financial Aid Available

Scholarships are nonrepayable money usually based on academic performance or demonstrated need.

Grants are nonrepayable money usually based on demonstrated need.

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

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

Sources of Financial Aid

FEDERAL PROGRAMS

Federal Pell Grant: This program offers grants up to \$4000 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.

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 \$2,625 per academic year. Second-year students may borrow up to \$3,500 per academic year. 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%. 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 Enrollment Verification Form must be submitted to the Financial Aid Office before payment is made. If verification is not provided, the check is returned to the lender.

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

STATE PROGRAMS

Michigan Competitive Scholarships: Scholarships of up to \$1,300 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 under 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 1/4 quantum blood Indian.

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 website at www.montcalm.edu/foundation or by contacting the Financial Aid Office.

The Stanley and Blanche Ash Scholarship awards two annual \$2,000 scholarships that cover tuition, fees and books for 60 credits over a two year period. One is given to an in-district high school senior with a 3.0 cumulative GPA, who is recommended by a high school counselor or principal. The second is open to all in-district residents.

The Louise D. Buescher Scholarship awards four annual \$400 stipends to students enrolled in at least six credits.

The Dr. Gordon DeVries/Dr. Thomas Deurloo Scholarship awards one annual \$700 scholarship to a student pursuing a nursing degree and who is enrolled in at least six credit hours.

The Doris M. Arntz Scholarship is awarded annually to a student pursuing an occupational program at MCC after successfully completing an occupational program in the K-12 school system. The applicant must be recommended by a counselor, teacher or principal from that school system.

The Mildred Farmer-Angwin Scholarship annually awards \$500 to two Greenville High School graduates showing financial need and pursuing a nursing degree.

The Nancy Fox Scholarship annually awards \$350 to a single-parent student pursuing a degree and taking at least one art course.

The Mr. & Mrs. John Hathaway Scholarship annually awards up to \$1,000 to a Tri-County High School graduate with a high school GPA of 2.0 or better, who is recommended by the Tri-County High School counselor or principal.

The Judy K. DeVolder/Nutt Scholarship annually awards \$500 to a student pursuing a nursing degree and enrolled in at least six credit hours.

Financial Aid

The MCC-ESPA Scholarship annually awards \$150 for books to a full-time MCC student, demonstrating financial need, having completed at least 12 credit hours and enrolled in a degree or certificate program with a GPA of 2.5 or better.

The Edward Reddig Scholarship annually awards up to \$1,400 for tuition and fees to a graduate of Greenville High School with a 2.0 or better high school GPA, enrolled in a business program and showing financial need.

The Grace Sagendorf Scholarship annually awards \$500, split between two semesters, to five students who have completed 15 MCC credit hours with a 3.0 or better cumulative grade point average and demonstrated good citizenship.

The MCC Presidential Scholarship annually awards \$1,200, split between two semesters, for a student enrolled in at least six credits who is at least 25 years of age, shows financial need and has a 3.0 or better grade point average in prior education.

The Herbert N. Stoutenburg Scholarship is awarded annually to one graduate from an in-district high school pursuing a major in mathematics or science. The student must have a 3.0 or better high school GPA. The scholarship pays for 60 credits and must be used within two years. If the recipient also receives other financial aid specifically designated for tuition and fees only, this scholarship can then be used to pay for books and supplies up to the maximum amount as stipulated above (60 x MCC per credit hour tuition).

Beth Anderson Memorial Scholarships

The Beth Anderson Memorial New Student Scholarship awards eight \$500 scholarships to new MCC students who are recent high school graduates or adults who have not attended MCC. Criteria include academic achievement, community service, and financial need.

The Beth Anderson Memorial Current/Returning Student Scholarship awards 16 \$500 scholarships for applicants who are current or returning MCC students, with a minimum of 6 credit hours at MCC prior to fall semester. Criteria include academic achievement, community/college service, and financial need.

The Beth Anderson Memorial Short-term Training Program Scholarships awards six or more scholarships of up to \$500 for applicants enrolling in short-term training programs at MCC.

The Beth Anderson Memorial International Student Scholarship awards two \$500 scholarships for current MCC international student applicants. Criteria include academic achievement, community or college service, and need.

The Board of Trustees Scholarship annually awards \$600 to two students per in-district high school, seven students for all other area high schools, and four students for Alternative/Adult Education schools who have earned a 3.0 cumulative GPA and are recommended by a high school counselor or principal or by a program director.

Contact the Financial Aid Office for more information.

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 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.

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

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

A variety of programs and organizations provide scholarships and financial assistance to those meeting specific qualification criteria. Contact local organizations offering scholarships, a high school guidance counselor, 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

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

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

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

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

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

Credit Hours Attempted	Student Must Successfully Complete
1-15	50%
16 and above	70%
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 stat-

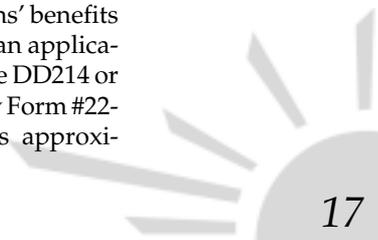
ing they are no longer eligible for financial aid. Students denied financial aid because of failure to make satisfactory academic progress may appeal the denial in writing to the Financial Aid Office if there are mitigating circumstances. The appeal must describe in detail all circumstances which the student believes are relevant to his or her inability to meet the satisfactory academic progress requirements. Students must submit any supporting documents. Students who attain less than a 2.0 GPA at the end of their first enrollment period are placed on academic probation.

A Satisfactory Academic Progress Review Committee will assess the appeal and determine if it will be approved. The student will be advised in writing of the committee’s decision. A student who appeals and is reinstated on a probationary status must meet all criteria in the reinstatement notification. If the appeal is approved, the student will receive an additional probational semester of aid during which he or she must meet the criteria stated in the response. At the end of the probationary semester, grades and other requirements will be reviewed to determine if the student will continue on probation until the satisfactory academic progress policy requirements are met. If a student becomes ineligible for financial aid due to a lack of satisfactory academic progress and no appeal is submitted or the appeal is denied, he or she may regain eligibility by meeting the satisfactory academic progress policy without the benefit of financial aid at MCC. To do this, the student must enroll and complete the courses which are applicable to his or her program of study, and the student must achieve the number of credit hours and the necessary grade point average to meet the satisfactory academic progress policy.

Veterans’ Information

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

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



Financial Aid

STANDARDS OF ACADEMIC PROGRESS

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

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

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

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

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

Unsatisfactory progress can stop VA benefits. The MCC academic dismissal policy is on page 24 of this catalog. Students receiving VA benefits who are placed on academic probation for two consecutive semesters or dismissed for unsatisfactory progress will not be recertified for benefits until a minimum accumulated 2.0 grade point average has been achieved at the student's expense. An appeal may be made to the Director of Financial Aid for special circumstances. The VA will be notified when a student remains on academic probation for two consecutive semesters or is dismissed for unsatisfactory progress. Students receiving VA benefits who receive incomplete or unsatisfactory grades are allowed one year from the end of the semester to complete the course and receive a grade. If the class is not completed in the year allowed, the VA may require repayment of funds received for the course.



STUDENT SERVICES

The Student Services area is located in the upper level of the Administration Library Building.

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 website.

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

A signed, written request to the Enrollment Services Office is required to release a student's academic transcript to a third party. The request should include the student's name and former names used while attending MCC, dates of attendance, and social security 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 sent to students upon request.

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

Career Library

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

Career Planning Services

Personal career counseling is available to students who are undecided about which college program or career to pursue. Career interest testing is also available to assist with educational planning and decision making. Contact Counseling and Career Services at 989-328-1231 for an appointment. 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, resume assistance and job-search consultation is available to students and alumni through Counseling and Career Services or by calling 989-328-1231. An Employment Bulletin which lists current employment opportunities is available to current students and alumni on MCC's website at www.montcalm.edu under the Current Student button.

Tutorial Services

MCC offers free peer tutorial assistance to students experiencing academic difficulty. Tutoring is available on an individual or group basis. Application information is available from the Educational Assistance Office at 989-328-1264.

Mentoring Services

MCC is concerned about the experiences, well being, and success of students. Mentoring services provide support and encouragement and assist students in making the transition to college. Those who feel they would benefit by having a mentor who is familiar with MCC and the services that are available should call 989-328-1243 for more information.

Disability Services

MCC is committed to providing equal educational opportunities to students. The Carl D. Perkins Vocational and Technical Education Act is a federal program that is funded through the Michigan Department of Career Development. This grant provides funding for academic assistance for students with documented long- or short-term disabilities enrolled in two-year, state-approved occupational education programs. Students eligible for assistance must meet the following criteria: academic or economic disadvantage, limited English skills, physical and/or emotional disabilities or enrolled in gender-biased programs.

Support services include academic and career counseling, college and community agency referrals, communication and liaison with instructors, remediation of student's basic academic skills, attendance cost assistance and registration assistance. Students with documented disabilities are provided readers, writers/scribes, note takers, interpreters, instructional aides, visual aids, books on tape, and other services necessary to successfully complete their academic program of study.

Students with documented disabilities in need of assistance must contact the Educational Assistance Office at 989-328-1264 to arrange for support services. In order to provide accommodations, some requests need to be arranged prior to the beginning of the semester.



STUDENT ACTIVITIES

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

Clubs

MCC sponsors student clubs and organizations.

Current clubs and organizations include the:

- Art Club
Advisor Carolyn Johnson
- Drama Club
Advisor Valerie Vander Mark
- Nursing Club, ADN
Advisor Marilyn Witter
- Off Campus PN club
Advisor Karen Lincoln
- On Campus PN club
Advisor Jenny Griffiths
- Phi Theta Kappa Honor Society,
Alpha Tau Alpha Chapter
Advisor Debra Jones
- Native American Club
Advisor Ken DeLong
- Montcalm Music Makers Chorus
Advisor Val Vander Mark

The growth of new clubs and organizations at MCC is supported and encouraged. Guidelines for establishing new clubs may be obtained by contacting Development Officer Debra Jones at (989) 328-1243.

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.

Honor Society

Phi Theta Kappa is an international honor society for junior and community college students. There are more than 1,200 PTK chapters. MCC's Alpha Tau Alpha Chapter provides opportunities in leadership, scholarship, fellowship and service. To qualify for membership, students must complete a minimum of 12 MCC credit hours with a minimum 3.5 GPA and have letters of recommendation from two MCC faculty members. Students who have been granted academic amnesty are not eligible for membership. Call 989-328-1243 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

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 mid-June to early August.

Classification System

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

A *full-time* student is one who enrolls for 12 or more credit hours per semester. Enrollment in 9-11 credit hours is considered three-quarter time and enrollment in 6-8 credit hours is half-time. An average of 15 hours per semester is required to complete 60 hours in four semesters. To enroll in more than 18 credit hours in a semester, students must have written permission from an academic advisor. Full time status for summer session is 6 or more credit hours (more than 9 credits requires written permission from an advisor). This may vary for financial aid purposes.

Program Planning

In planning course work, students should use counseling services, faculty, and the catalog and semester class schedules. Some courses are offered every semester while others are only offered once per year or on an irregular basis.

Program of Study Selection

Selection of a program of study takes place prior to registration. During the counseling interview, students are advised of specific course requirements necessary for program completion. Exceptions to 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.

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 and follow the program requirements in effect at the time the change is made; students will 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 time prior to the start of each semester. Summer and fall registration begins in April; spring registration in November. Changes to schedules may be made any time during scheduled registration dates. Registration for classes that don't 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 in person, by phone, mail, internet or fax. Students should check the semester schedule carefully for any assessment scores and pre- or corequisites required for enrollment in classes. 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 class schedule, approximately 8 to 10 days during fall and spring semesters; contact Enrollment Services for drop/add dates for courses that do not follow the regular semester schedule. 100% of 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 the Enrollment Services Office.

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.

Grading System

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

GRADE	*HONOR 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	Failure
WP	Withdrew while passing
WF	Withdrew while failing
I	Incomplete
V	Audit
S	Satisfactory completion
U	Unsatisfactory completion
AT	Articulated credit
TR	Transferred credit

**Honor Points are used to calculate the numerical value of grades earned divided by total 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 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.
3. An I grade is not averaged with other grades to establish a grade point average.
4. Students receiving Veterans' benefits who receive an I grade have one year to complete the course without repaying the VA for the class.

AUDIT applies when a student pays tuition for a course but is not required to complete assignments or examinations. Audit status must be declared in writing no later than the last day of the drop/add period.

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: CMIS100, CRIM115, DVED120, DVED150, DVED151, DVED152, DVED153, DVED160, DVED161, DVED162, DVED163, DVED170, and DVED171. An S grade will also be given when a student tests out of a course for credit. (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. It is the student's responsibility to contact the instructor who issued the grade within thirty days of the date that grades are mailed to students at the end of a semester. This initial contact is to schedule a meeting with the instructor to discuss the grade problem. During that meeting the student must supply the instructor with a written explanation of the grade concern. The faculty member will review his or her grading policy with the student, disclose to the student the components leading to the grade issued, and render a written response to the student's complaint. Students desiring additional information or assistance with this process should contact a counselor.
2. 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.
3. If the student is not satisfied with the decision of the faculty member, she/he 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, which if agreed to by both the faculty member and the student, will become a permanent part of the student's record.

4. If the student is dissatisfied with the decision of the instructional administrator, she/he will, within five calendar days of the decision, request in writing a hearing with the Dean of Academic Services. The Dean 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.
5. Upon review of all evidence, issues and concerns, the Dean of Academic Services will render a decision, which will be final and binding on all parties. Documentation of this decision will become a permanent part of the student's official academic record.
6. Copies of all written documents will become part of the student's permanent academic file.

Honors

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

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 who earn at least a 2.00 GPA for their next attempted semester, but whose accumulated GPA re-

mains below 2.00, will continue on probation until the accumulated GPA reaches a 2.00 or higher.

5. Students placed on academic dismissal must meet with the Dean of Student Services to be 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.

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 Requirements

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 applies to students whose first MCC enrollment was fall semester 1998 or after.) 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 handbook.
3. Earn a minimum of 24 credits for an associate degree or 40% of the total credits required for a certificate while enrolled at MCC.

4. Be enrolled at MCC during the semester requirements are completed. Students may appeal this requirement by writing to the MCC Dean of Academic Services.
5. Apply for graduation and pay the graduation fee.
6. Ensure proof of high school graduation or GED certification is on file at MCC.

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

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

Student Leave of Absence

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

1. The Dean of Student Services is authorized to approve requests in accordance with procedures developed pursuant to this policy.
2. The request must be supported by appropriate documentation, such as a physician's statement or military documentation which verifies that the student is unable to complete the course work at the current time.
3. With approval for a leave of absence, tuition-and-fee credit may be issued where a class grade of C- or below or a withdraw grade has been given by the instructor. Tuition-and-fee credit will be issued only with the approval of the Dean of Student Services (and the Director of Financial Aid in cases where the student's account has been paid through Financial Aid).
4. When a student is responsible for his or her own account balance at the time the leave is granted, the amount of any unpaid tuition and fees will be deferred until the leave expires.

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

Family Educational Rights and Privacy Act

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

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 will be using 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 the Student Services Office and the Director of Enrollment Services is responsible for their upkeep. Information is maintained on previous transcripts and grades while attending Montcalm Community College. Financial aid and Veterans' records are maintained in the Financial Aid Office. All Student Services and Instructional Administration employees have access to these student records. All full-time instructors have access to the records of students attending or students who have attended their classes.
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,

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 at the following address: James D. Lantz, 2800 College Drive, Sidney, Michigan 48885-9723 and the following telephone number: 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

MCC buildings are smoke free. Students are to adhere to all smoking regulations posted on the campus.

EXPLOSIVES

The possession or use of explosives, firecrackers or firearms on college property or at college- or student-sponsored functions is not permitted without the expressed consent of college authorities.

GAMBLING

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

CHEATING - PLAGIARISM

All students are expected to be honest in their studies. Dishonesty in completing assignments, examinations or other academic endeavors is 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 and the Board of Trustees.

Provisions for Review of Disciplinary Decisions

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

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

2. In the event the President sustains the decision of the Dean, the aggrieved student may request a hearing before the Board of Trustees by giving notice in writing to the Secretary of the Board not later than 10 days after the President's decision is announced.
3. In the event the decision of the Dean of Student Services is reversed by the President, the decision of the President shall be binding upon both parties, unless reversed by the Board of Trustees.
4. The hearing before the Board of Trustees shall be conducted so as to assure both parties the right to counsel of their own choosing, the right to provide witnesses, the right to question witnesses, and such other process as may be necessary to provide coincident exposure to two points of view.
5. In all cases, decisions rendered by the Board of Trustees, subsequent to a hearing regarding a disciplinary case, shall be final and binding upon all parties.

Substance Abuse Policy and Procedure

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

STANDARDS OF CONDUCT

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

LEGAL SANCTIONS

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

HEALTH RISKS

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

AVAILABLE COUNSELING AND TREATMENT PROGRAMS

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

Treatment programs are available at the following agencies:

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

Mt. Pleasant Counseling Services
3480 S. Isabella Rd., Mt. Pleasant, MI 48858
989-773-9655

Substance Abuse Consultation Services
308 E. Main, Stanton, MI 48888
989-831-4980

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

DISCIPLINARY SANCTIONS

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

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 MCC Dean of Student Services Lon Holton for details at 989-328-1276.

Threatening Disasters on or Near Campus

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

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

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

Tornado

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

SAFETY PROCEDURES

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

1. If a tornado warning condition exists in the immediate vicinity, a message will be sent to all buildings. The fire alarm must not be used.
2. The message will state: "A tornado has been sighted in the area. You are to proceed to the nearest tornado shelter which is indicated on the chart posted in each classroom. 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 or television. They are asked not to call the college switchboard to ask about cancellations, but to listen for the information on the following radio or television stations.

RADIO STATIONS

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

TELEVISION STATIONS

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

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



SPECIFIC SITUATIONS

1. If you are a victim of a crime, call 911 as soon as possible. If it is an assault, try to remember as much about the person as possible. Important characteristics include: sex, race, hair color, 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. If the office is closed, contact the Personnel Office. If the Personnel Office is closed, contact the custodian on duty in the Power Plant. Obtain as much information from the caller as possible including the location of the bomb, the time of explosion, and the type of bomb. Observe the caller's voice and any background noises. This information can assist in identifying the caller. Sheriff's deputies will search the area identified and contact a removal team if a device is found. The sheriff's department and college administrators will determine if evacuation is required.
4. If there are any other emergencies such as a fire or people needing medical attention, call 911 immediately.

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 Department 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 non-credit courses, workshops and seminars offered through Continuing Education will help you prepare for the challenges of the twenty-first century by providing current and useful information on topics of interest to you in your personal or professional life. Courses are conveniently scheduled.

Courses

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

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

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

Programs

SUMMER DAY CAMPS for children offer a learning experience in a fun environment. In cooperation with the Montcalm Area Intermediate School District and the Montcalm Area Arts Association, the college hosts week-long science, fine arts and sports camps.

WELLNESS ACTIVITIES are planned in cooperation with representatives from area health organizations.

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

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

For information about current courses and recreational opportunities, call Continuing Education at 989-328-1260.



Business & Industry Training

MCC offers high quality, guaranteed training programs in a variety of formats to area businesses. Services include quality, customized training to business and industry in a format that will fulfill 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 include: 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, apprenticeship and contracted training administration.

Workplace skills can be assessed and evaluated through the ACT WorkKeys® Service Center which specializes in job profiling, task analysis, and employee assessments.

MCC's business and industry services are located at M-TEC in Greenville. This facility offers state-of-the-art conference and meeting facilities that can host a handful of people or groups as large as 250. Each room is equipped with the latest presentation technology equipment. Rates are reasonable. Catering is available for most functions.

Contact MCC Director of Workforce Development Leslie Anne Wood at 989-328-1214 or lesliew@montcalm.edu for more information about business and industry services.

Facilities

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

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

COLLEGE FACILITIES

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

ADMINISTRATION/LIBRARY BUILDING: This building houses administrative offices, the student services office, financial aid and the library. The library is available to students and the community. Books and reference materials, collections of periodicals, audiovisual materials, video viewing stations, Internet access and study areas are available. Automated information searches are available via CD-ROM products and various on-line database services. Proof of identification is needed to borrow library materials. Library cards are issued.

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, and a variety of items bearing the MCC name.

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

COMMUNITY LEARNING CENTERS: The MCC Ionia Center, located in the Ionia Educational Center at 250 E. Tuttle Road, the MCC Howard City Center, located in the Panhandle Area Center at 5856 Federal Road and the GTEC at 327 E. Center in Alma are sites of off-campus college courses. MCC also offers courses at a number of other off-campus locations.

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

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

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

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 during August.

M-TEC: THE STANLEY AND BLANCHE ASH TECHNOLOGY & LEARNING CENTER

A Michigan Technical Education CenterSM

The M-TEC, located on Yellow Jacket Drive in Greenville, offers open-entry, open-exit cutting-edge skills training to meet business-and-industry demands. The center also houses credit and non-credit classes for high school students and others, a large conference facility, computer labs, display areas and classrooms.

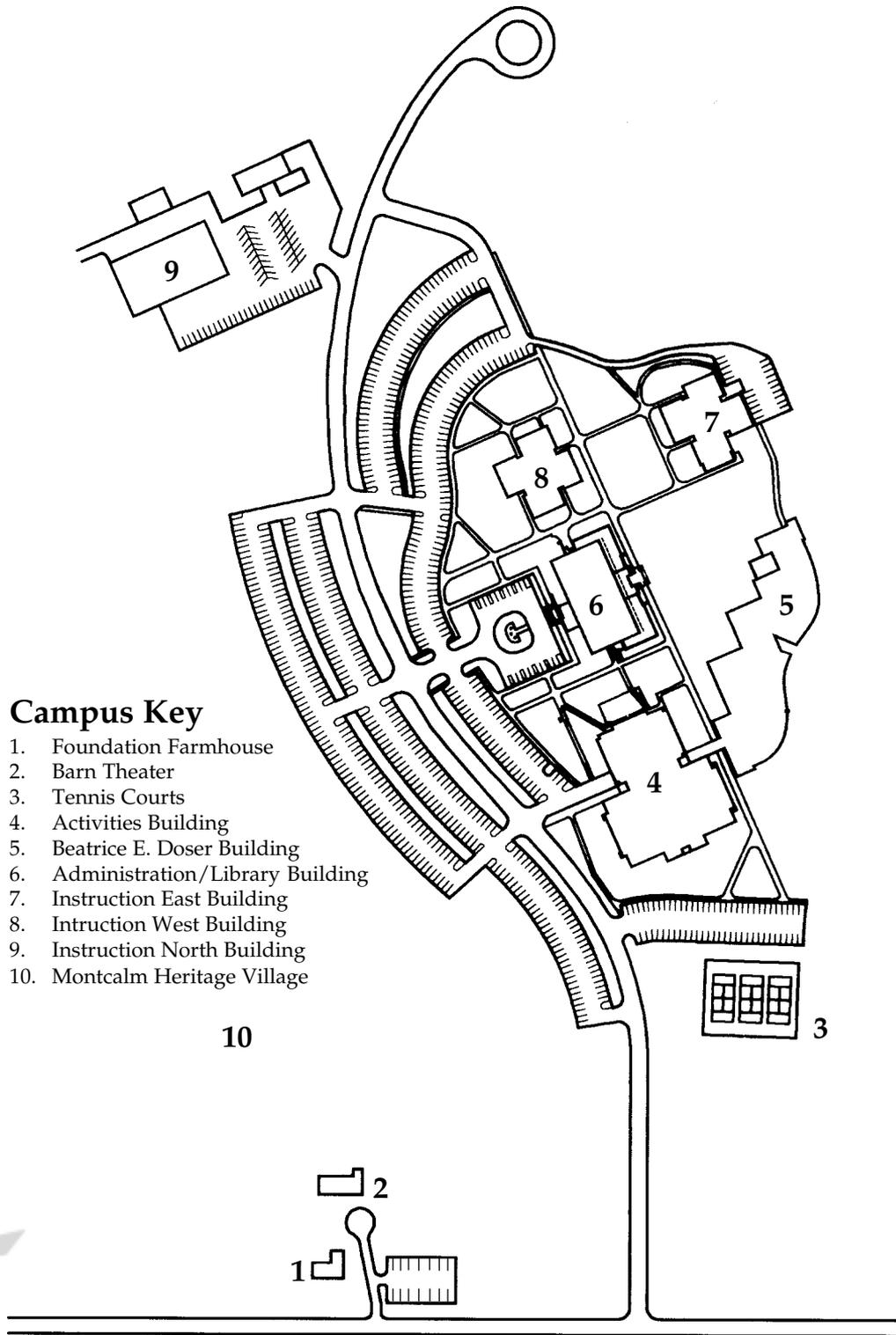
NATURE TRAILS: Several trails exist in the nature area on college property and adjoining state land. Biology students use the nature trails for short field trips and research projects, and students and community members may take self-guided nature walks.

PHYSICAL EDUCATION FACILITIES: MCC's campus includes an NCAA-size swimming pool, tennis courts, a gymnasium, a climbing wall and a fitness center. The facilities are available to students and community members.

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 East Building
8. Instruction West Building
9. Instruction North Building
10. 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 42. 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

ASSOCIATE OF SCIENCE

ASSOCIATE OF LIBERAL STUDIES

ASSOCIATE OF GENERAL STUDIES

ASSOCIATE OF APPLIED SCIENCE PROGRAMS

Accounting
Business Administration
Business Information Systems
Computer Repair
Cosmetology Management
Criminal Justice/Corrections
Criminal Justice/General
Diagnostic Medical Sonography*
DMS-Vascular Technology*
Early Childhood Development
Electronics Technology
Executive Secretary
Industrial Technology
Information Systems
Medical Information Systems
Nursing
Radiography**
Small Business Development/Management
Technical Drafting & Design

*Articulated with Jackson Community College.

**Articulated with Mid-Michigan Community College.

MULTIPLE DEGREE PROCEDURE

Students may receive more than one 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 executive secretary and medical information systems, and have that noted on the diploma, but will not be awarded two diplomas. An area of concentration completed after an AAS degree is issued will be noted on the transcript.

Students who have received or are earning an AA, AS, ALS or AAS degree may not apply for an AGS 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

Computer Repair
Cosmetology
Criminal Justice/Corrections
Customer Energy Specialist
Electronics Technology
Information Processing Assistant
Machine Tool Operation
Medical Assistant
Nanny
Office Assistant
Practical Nursing: On & Off Campus
Small Business Development/
Management
Technical Drafting
Welding Technology

TRAINING PROGRAMS

Apprenticeship Training
Child Development Associate
Criminal Justice/Corrections
Emergency Medical Technician
Long-Term-Care Nurse Assistant
Medical First Responder
Medical Insurance & Coding
Nurse Assistant
Phlebotomy

OTHER OPTIONS

If your degree goal is not listed above, consult an MCC counselor in MCC's Student Services Office to design a program that needs your needs.

Bachelor's degrees through articulation

MCC credits transfer to other colleges and universities. The following partnerships have been developed to facilitate transfer. Many of these partnerships allow students to earn a bachelor's degree online. 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.

Central Michigan University

Bachelor of Science in Education

Elementary Education
Up to 64 credits may be completed at MCC

Secondary Education
(Up to 61 credits may be completed at MCC)

Davenport University –

(Grand Rapids Campus)

Bachelor of Science

Accountancy
Human Resource Management

Bachelor of Applied Science

Accountancy
Business Studies
Finance
Health Care Administration
Management
Marketing
PC and LAN Management
(Approximately 90 credits may be completed at MCC)

Ferris State University

Bachelor of Science

Biotechnology
(Up to 60 credits may be completed at MCC)

Business
Criminal Justice
Allied Health Education
Elementary Education
Secondary Education
Technical Education
Other BS degrees
(Up to 90 credits may be completed at MCC)

Franklin University (Online)

Bachelor of Science

Applied Management
Business Administration
Computer Science
Digital Communication
Health Care Management
Management Information Sciences
Public Safety Management
(Up to 84 credits may be completed at MCC)

Governors State University (Online and Video)

Board of Governors Bachelor of Arts

(Up to 80 credits may be completed at MCC)

Grand Valley State University

Bachelor of Science in Nursing

(Up to 62 credits may be completed at MCC)

Northwood University

Bachelor of Business Administration

(Up to 62 credits may be completed at MCC)

Saginaw Valley State University

Bachelor of Science in Nursing

(Up to 62 credits may be completed at MCC)

Spring Arbor College

Bachelor of Arts

Management and Organizational
Development (with Criminal Justice
Endorsement
(Up to 84 credits may be completed at MCC)



University of Maryland University College (*Online*)

Bachelor of Arts

English

History

*(Up to 60 credits may be
completed at MCC)*

Bachelor of Science

Accounting

Business Administration

Communication Studies

Computer and Information Science

Computer Studies

Environmental Management

Fire Science

Human Resource Management

Humanities

Information Systems Management

Legal Studies

Management Studies

Marketing

Psychology

Social Science

*(Up to 60 credits may be
completed at MCC)*

University of Phoenix – (*Grand Rapids Campus*)

Bachelor of Science

Business/ Administration

Business/e-Business

Business/Management

Human Services

Information Technology

Management

*(Up to 79 credits may be
completed at MCC)*

Nursing

*(Up to 69 credits may be
completed at MCC)*

Western Michigan University

Bachelor of Science

Occupational Education Studies –

Articulated Teacher Education

Program

*(Up to 61 credits may be completed
at MCC)*

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 website at www.mccvlc.org.

CAREER PATHWAYS

Career Pathways are groupings of careers that share similar characteristics and whose employment requirements include many common interests, strengths, and competencies. Many K-12 school districts use Career Pathways to assist students in career planning. MCC offers courses in all six pathways. Some lead to a certificate or degree and others can be part of a transfer plan. Students should work with an MCC counselor to design programs to meet their career goals.

The Arts and Communications

pathway includes careers related to the humanities, the performing, visual, literary, and media arts.

The Business, Management, Marketing and Technology

pathway includes careers related to all aspects of business and marketing.

The Engineering/Manufacturing and Industrial Technology

pathway includes careers related to technologies necessary to design, develop, install, or maintain physical systems.

The Health Sciences

pathway includes careers related to promotion of health and the treatment of injuries and disease.

The Human Services

pathway includes careers related to helping people improve their life physically, socially, or emotionally.

The Natural Resources and Agriscience

pathway includes careers related to natural resources, agriculture, and the environment.



ASSOCIATE OF ARTS (AA)

Arts
Associate

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. Students who desire to have an area of concentration noted on their transcript upon graduation may choose from Art, Early Childhood Development, Language Arts, Physical Education, Pre-Elementary Education, or Social Science.

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, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231. (The science requirement may also be met through competency testing.)

Mathematics -- 4 credits
MATH100 or higher. (The math requirement may also be met through competency testing. MATH100 does not satisfy MACRAO requirements described on pages 9-10 of this catalog. Students seeking a MACRAO endorsement should take MATH104, a higher level math course, or at least two science courses with different prefixes in addition to MATH100.)

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

Humanities -- 11 credits
Should include HUMN200 and HUMN201 plus at least one of the following: ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Total Required General Education Credits	41
Total Elective Credits	19
Total Credits Required for Degree	60

ASSOCIATE DEGREES



ASSOCIATE OF SCIENCE (AS)

Students seeking the Associate of Science degree should consult a counselor if planning to transfer to a four-year institution. Students who desire to have an area of concentration noted on their transcript upon graduation may choose from Biological Science or Physical Science.

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 PHYS230 and PHYS231

Mathematics -- 4 credits
Choose one or more of the following: MATH159, MATH250, MATH251, MATH252, or MATH290

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

Humanities -- 8 credits

Should include HUMN200 and HUMN201 or at least three of the following: ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, HUMN100, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Total Required General Education Credits	47
Total Elective Credits	13
Total Credits Required for Degree	60



ASSOCIATE OF LIBERAL STUDIES (ALS)

Liberal Studies
Associate

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. Students who desire to have an area of concentration noted on their transcript upon graduation may choose from Art, Early Childhood Development, Language Arts, Physical Education, Pre-Elementary Education, or Social Science.

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, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231. (The science requirement may also be met through competency testing.)

Mathematics -- 4 credits
MATH104 or higher.

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

Humanities -- 8 credits

Should include HUMN200 and HUMN201 or at least three of the following (with different prefixes): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, HUMN100, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131.

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Total Required General Education Credits	35
Total Elective Credits	25
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: BUSN251, CMIS185, 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, PHYS101, PHYS111, PHYS112, PHYS230, or PHYS231. (The science requirement may also be met through competency testing.)

Mathematics -- 4 credits

MATH100 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 or two of the following: SOCI111, SOCI230, SOCI235, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, PSYC120, PSYC221, PSYC223, or PSYC225

Humanities -- 4 credits

Choose HUMN100, HUMN200, HUMN201 or at least two of the following (with different prefixes): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 2 credits

CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Total Required General Education Credits 21.5-24

Total Elective Credits 36-38.5

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 -- 2-3 credits
BUSN251, CMIS185, or COMM220

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

Mathematics -- 3-4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 3 credits
CMIS115 (Prerequisite: CMIS101)

Program Requirements

Course Name	Course #	Cr.
Principles of Accounting I	ACCT 115	4
Principles of Accounting II	ACCT 116	4
Computerized Accounting	ACCT 212	4
Tax Accounting	ACCT 246	3
Introduction to Business	BUSN 135	3
Legal Environment of Business	BUSN 200	3
International Business		
Practice Firm	BUSN 283	3
Principles of Macroeconomics	ECON 215	3
Business Management	MGMT 235	3
Organizational Behavior	MGMT 250	3
Electives		2-5

Suggested Electives

Course Name	Course #	Cr.
Business Communications I	CMIS 180	3
Principles of Marketing	MRKT 233	3
Retailing	MRKT 234	3
Advertising	MRKT 248	3

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing and Technology career pathway.

APPLIED ASSOCIATE DEGREES

BUSINESS ADMINISTRATION

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

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications -- 3 credits
ENGL100

Oral Communications -- 2-3 credits
BUSN251, CMIS185 or COMM220

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

Mathematics -- 3-4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201, or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130 or SPAN131

Computer Literacy -- 3 credits
CMIS115 (Prerequisite: CMIS101)

Program Requirements

Course Name	Course #	Cr.
Principles of Accounting I	ACCT 115	4
Principles of Accounting II	ACCT 116	4
Introduction to Business	BUSN 135	3
Legal Environment of Business	BUSN 200	3
International Business	BUSN 260	3
International Business Practice Firm	BUSN 283	3
Principles of Macroeconomics	ECON 215	3
Business Management	MGMT 235	3
Organizational Behavior	MGMT 250	3
Electives		6-9

Suggested Electives

Course Name	Course #	Cr.
Computerized Accounting	ACCT 212	4
Tax Accounting	ACCT 246	3
Field Experience	BUSN 292	3-5
Business Communications I	CMIS 180	3
Principles of Marketing	MRKT 233	3
Retailing	MRKT 234	3
Advertising	MRKT 248	3

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing and Technology career pathway.



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 -- 2-3 credits
BUSN251, CMIS185 or COMM220

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

Mathematics -- 3-4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201, or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130 or SPAN131

Computer Literacy -- 3 credits
CMIS115 (Prerequisite: CMIS101)

Program Requirements

Course Name	Course #	Cr.
Principles of Accounting I	ACCT 115	4
Principles of Accounting II	ACCT 116	4
Legal Environment of Business Management	BUSN 200	3
Organizational Behavior	MGMT 237	3
Introduction to Programming and Logic	MGMT 250	3
Microcomputer Applications	CMIS 130	3
Microcomputer Spreadsheets	CMIS 175	3
Microcomputer Data Base Applications	CMIS 250	3
Advanced Microcomputer Applications	CMIS 255	3
Systems Concepts/Design	CMIS 260	3
Elective	CMIS 265	4
		2

Suggested Elective

Business Communications I CMIS 180 3

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing and Technology career pathway.



COMPUTER REPAIR

This associate of applied science degree program specializes in computer repair and provides the background and skills necessary for entry-level jobs in the manufacture, installation and maintenance of computers. Students in this program study mathematics, theory of electricity and electronics, circuits, computer systems with programming, physics, electronics fabrication, and a basic general education core. Most courses are a combination of lecture and laboratory providing the student with practical hands-on experience.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications -- 3 credits
ENGL100

Oral Communications -- 2 credits
BUSN251

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, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, PSYC120, PSYC221, PSYC223, or PSYC225

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201, or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Course Name	Course #	Cr.
Exploring the Internet	CMIS 110	1
Introduction to Computer Information Systems	CMIS 115	3
Introduction to Programming & Logic	CMIS 130	3
Introduction to Programming C++	CMIS 131	3
Introduction to HTML Programming	CMIS 132	3
Network Management	CMIS 133	3
Concepts of Electricity	ELEC 100	3
Electronic Fabrication	ELEC 105	1
Digital Logic	ELEC 130	3
Computer Repair I	ELEC 171	3
Computer Repair II	ELEC 172	3
Digital Electronics	ELEC 230	3
Technical Writing for Business & Industry	INDS 140	3
Introduction to College Physics II	PHYS 112	3
Electives		1

A COMPUTER REPAIR CERTIFICATE PROGRAM IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.



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 -- 2 credits
BUSN251

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

Mathematics -- 3-4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201, or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, SPAN130, or SPAN131

Computer Literacy -- 3 credits
CMIS115 (Prerequisite: CMIS101)

Program Requirements

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

Course Name	Course #	Cr.
Accounting for Small Business	ACCT 105	3
or Principles of Accounting I	ACCT 115	4
Business Management	MGMT 235	3

A COSMETOLOGY CERTIFICATE PROGRAM IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Human Services career pathway.



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 training program 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 -- 2 or 3 credits
BUSN251, CRIM136, COMM210, or COMM220

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

Mathematics -- 4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Course Name	Course #	Cr.
Introduction to Criminal Justice	CRIM 100	3
Introduction to Corrections	CRIM 110	3
Stress Management for Correctional Officers	CRIM 115	1
Corrections Institutions/Facilities Communication in Criminal Justice	CRIM 120	3
PPCT Defensive Tactics	CRIM 136	3
Emergency Intervention Techniques	CRIM 137	2
American Criminal Law	CRIM 138	2
Legal Issues in Corrections	CRIM 210	3
Parole, Probation and Community Corrections	CRIM 220	3
Client Relations in Corrections	CRIM 235	3
Client Growth & Development	CRIM 250	3
Freshman English II	CRIM 260	3
Electives	ENGL 101	3
		3-5

Suggested Electives

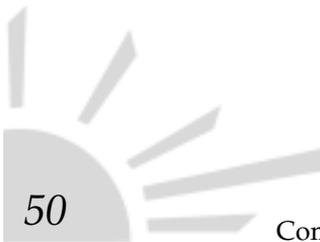
Course Name	Course #	Cr.
Organizational Behavior	MGMT 250	3
Criminal Justice Practicum*	CRIM 290	5
Psychology	PSYC 120	3

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

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

CAREER PATHWAY

This program corresponds to the Human Services career pathway.



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 -- 3 credits
ENGL100

Oral Communications -- 2 or 3 credits
BUSN251, CRIM136, COMM210, or COMM220

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

Mathematics -- 4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Course Name	Course #	Cr.
Introduction to Criminal Justice	CRIM 100	3
Introduction to Corrections	CRIM 110	3
Corrections Institutions/Facilities	CRIM 120	3
Police Administration and Operations	CRIM 125	3
Criminal Investigation	CRIM 130	3
PPCT Defensive Tactics	CRIM 137	2
American Criminal Law	CRIM 210	3
Juvenile Delinquency	CRIM 230	3
Introduction to Security Systems	CRIM 240	3
Freshman English II	ENGL 101	3
Speech	COMM210	3
American Political System	POLI 240	3
Psychology	PSYC 120	3
Electives		3-5

Suggested Electives

Course Name	Course #	Cr.
Organizational Behavior	MGMT250	3
Criminal Justice Practicum*	CRIM 290	5

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

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

CAREER PATHWAY

This program corresponds to the Human Services career pathway.



DIAGNOSTIC MEDICAL SONOGRAPHY

(ARTICULATED PROGRAM)

A sonographer is the allied health professional who uses high frequency sound waves to create cross-sectional images of the patient's anatomy for diagnostic purposes. Sonographers work with radiologists and clinical physicians and are required to demonstrate a great deal of independent judgment.

The diagnostic medical sonography (DMS) program at Jackson Community College (JCC) is one of approximately 80 accredited by the Commission for Accreditation of Allied Health Programs in the US and leads to an associate degree in applied science at JCC. Prerequisite work must be completed prior to acceptance to the program. The curriculum consists of integrated lecture and clinical course work with a minimum of 1,350 supervised clinical hours in an approved clinical education affiliate.

The program prepares the student for employment in DMS positions in hospitals, medical clinics, and other diagnostic imaging institutions. Upon successful completion, students are eligible to write American Registry of Diagnostic Medical Sonography (ARDMS) exams and, if successful, use the RDMS (Registered Diagnostic Medical Sonographer) credential.

Applicants who have earned credentials in other allied health disciplines (e.g., RT, RVT, RDCS, RN) may have the prerequisite work waived and receive higher admission priority. Applications are processed at JCC according to the following timeline:

- ❖ Applications must be received by JCC no later than January 31.
- ❖ Questionnaires will be sent to applicants by February 15.
- ❖ Questionnaires must be returned no later than the first week of March.
- ❖ DMS Admission Committee will confer the third week of March.
- ❖ Applicants will be notified by mail no later than April 15 for Spring semester start (in May).

Some prerequisite courses may apply to this program.

Program Requirements

(at Montcalm Community College)

Course Name	Course #	Cr.
Pharmacology in Allied Health	AHEA 115	3
Introduction to Anatomy & Physiology*	BIOL 105	4
Introduction to Computer Information Systems (Prerequisite: CMIS101)	CMIS 115	3
or Microcomputer Applications	CMIS 175	3
Medical Terminology*	CMIS 215	3
Speech	COMM210	3
Freshman English I*	ENGL 100	3
Humanities I**	HUMN200	4
or Western Culture**	HUMN100	4
Intermediate Algebra (Prerequisite: MATH100)	MATH 104	4
Introduction to Physical Fitness	PHED 110	1
General Psychology	PSYC 120	3

*Must be completed with a minimum grade of 3.0 prior to admission process of winter semester at JCC.

**Humanities I is required if planning to take the two-course sequence of HUMN200 and HUMN201.

Program Requirements

(at Jackson Community College)

Course Name	Course #	Cr.
Introduction to Health Occupations	HOC 130	3
Introduction to Diagnostic Imaging	DMS 100	3
Sonographic Orientation	DMS 101	3
Introduction to Sonographic Instrumentation	DMS 104	3
Sonographic Technique	DMS 105	3
Interpretation I	DMS 110	4
Clinical Experience I	DMS 122	6
Sonography Instruction	DMS 206	3
Interpretation II	DMS 211	4
Interpretation III	DMS 212	4
Clinical Experience II	DMS 223	6
Clinical Experience III	DMS 224	6

Many of the DMS courses are available online.

A minimum 2.0 is required in each DMS course; a minimum 3.0 in HOC130.

CAREER PATHWAY

This program corresponds to the Health Services career pathway.

DMS-VASCULAR TECHNOLOGY

(ARTICULATED PROGRAM)

A vascular technologist (VT) is a highly skilled allied health professional who performs arterial and venous diagnostic procedures using high frequency sound waves. A VT operates a variety of complex diagnostic and monitoring equipment and numerous ancillary devices. VTs perform carotid duplex scanning, lower and upper Doppler examinations, venous duplex scans, evaluation of test results, monitoring of patients' physiological states, patient education, and maintenance of accurate records and protocols during and after procedures.

The two-year program leads to a degree at JCC. Prerequisite work must be completed prior to acceptance to the program. The curriculum consists of integrated lecture and clinical course work with a minimum of 900 supervised clinical hours with an approved clinical education affiliate. The program prepares students for employment in the field of sonography-vascular specialty positions in hospitals, medical clinics, and other diagnostic imaging health institutions. Upon successful completion, students are eligible to write the American Registry of Diagnostic Medical Sonography-Vascular certification exams and, if successful, use the credential RVT (Registered Vascular Technologist).

Applicants who have earned credentials in other allied health disciplines (e.g., RT, RDCS, RN) may have the prerequisite work waived and receive higher admission priority. Applications are processed at JCC according to the following timeline:

- ❖ Applications must be received by JCC no later than January 31.
- ❖ Questionnaires will be sent to applicants by February 15.
- ❖ Questionnaires must be returned no later than the first week of March.
- ❖ DMS Admission Committee will confer the third week of March.
- ❖ Applicants will be notified by mail no later than April 15 for Spring semester start (in May).

Some prerequisite courses may apply to this program.

Program Requirements

(at Montcalm Community College)

Course Name	Course #	Cr.
Pharmacology in Allied Health	AHEA 115	3
Introduction to Anatomy & Physiology*	BIOL 105	4
Introduction to Computer Information Systems (Prerequisite: CMIS101)	CMIS 115	3
or Microcomputer Applications	CMIS 175	3
Medical Terminology*	CMIS 215	3
Speech	COMM210	3
Freshman English I*	ENGL 100	3
Humanities I**	HUMN200	4
or Western Culture**	HUMN100	4
Intermediate Algebra (Prerequisite: MATH100)	MATH 104	4
Introduction to Physical Fitness	PHED 110	1
General Psychology	PSYC 120	3

*Must be completed with a minimum grade of 3.0 prior to admission process of winter semester at JCC.

**Humanities I is required if planning to take the two-course sequence of HUMN200 and HUMN201.

Program Requirements

(at Jackson Community College)

Course Name	Course #	Cr.
Introduction to Health Occupations	HOC 130	3
Introduction to Diagnostic Imaging	DMS 100	3
Sonographic Orientation	DMS 101	3
Introduction to Sonographic Instrumentation	DMS 104	3
Peripheral Arterial I	DMS 151	3
Peripheral Arterial II	DMS 152	3
Peripheral Venous	DMS 155	3
Vascular Clinical I (300 hours)	DMS 161	4
Sonographic Instrumentation	DMS 206	3
Cerebrovascular I	DMS 251	3
Cerebrovascular II	DMS 252	3
Vascular Clinical II (300 hours)	DMS 265	4
Vascular Clinical III (300 hours)	DMS 266	4

Many of the DMS courses are available online.

A minimum 2.0 is required in each DMS course; a minimum 3.0 in HOC130.

CAREER PATHWAY

This program corresponds to the Health Services career pathway.

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 -- 2 credits
BUSN251

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

Mathematics -- 4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Course Name	Course #	Cr.
Emergency Health Care	AHEA 100	2
Introduction to CDA	ECDV 100	1
Child Development: Infants & Toddlers	ECDV 110	3
Child Development: Preschoolers Infant/Toddler & Preschool Curriculum	ECDV 120	3
Administration of Early Childhood Programs	ECDV 130	3
Children with Special Needs	ECDV 150	3
Children's Literature	ECDV 160	3
Introduction to Physical Fitness	ENGL 235	3
Business Management	PHED 110	1
General Psychology	MGMT 235	3
Child Psychology	PSYC 120	3
Electives	PSYC 221	3
		5-6

Suggested Electives

Course Name	Course #	Cr.
Legal Environment of Business	BUSN 200	3
Organizational Behavior	MGMT 250	3
Michigan Child Care Futures: Basic	ECDV 140	1
Michigan Child Care Futures: Advanced	ECDV 141	1
Introduction to Teaching	EDUC 100	3
Elementary Spanish	SPAN 130	4
Sociology	SOCI 230	3
Home Management & Organization	ECDV 170	3

A CHILD DEVELOPMENT ASSOCIATE TRAINING PROGRAM IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Human Services career pathway.

ELECTRONICS TECHNOLOGY

Applied Science
Associate

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 -- 2 credits
BUSN251

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, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, PSYC120, PSYC221, PSYC223, or PSYC225

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS computer course, or competency testing.

Program Requirements

Course Name	Course #	Cr.
Concepts of Electricity	ELEC 100	3
Electronic Fabrication	ELEC 105	1
Electrical Circuit Analysis	ELEC 110	3
Electronic Devices	ELEC 120	3
Digital Logic	ELEC 130	3
Electronic Circuits	ELEC 210	3
Digital Electronics	ELEC 230	3
Microprocessors	ELEC 240	3
Industrial Electrical Maintenance I	ELEC 251	2
Industrial Electrical Maintenance II	ELEC 252	2
Industrial Electrical Maintenance III	ELEC 253	2
Industrial Electrical Maintenance IV	ELEC 254	2
Introduction to College Physics II	PHYS 112	3
Electives		6

Suggested Electives

Course Name	Course #	Cr.
Introduction to Programming & Logic	CMIS 130	3
Introduction to Programming C++	CMIS 131	3
Introduction to HTML Programming	CMIS 132	3
Computer Repair I	ELEC 171	3
Computer Repair II	ELEC 172	3
Statistical Process Control	INDS 104	1
Industrial Safety	INDS 155A	1.5
Industrial First Aid	INDS 155B	0.5
Basic Fluid Power	INDS 253	3
Manufacturing Processes	INDS 260	2
Industrial Quality Control	INDS 270	2
College Algebra	MATH 159	4

COMPUTER REPAIR AND ELECTRONICS TECHNOLOGY CERTIFICATE PROGRAMS ARE ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.

EXECUTIVE SECRETARY

This program provides knowledge of business concepts and technology. Graduates are prepared for employment as secretaries and administrative assistants who are responsible for assisting the executive.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications -- 3 credits
ENGL100

Oral Communications -- 3 credits
CMIS185 (*Prerequisite: CMIS180*)

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

Mathematics -- 4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 3 credits
CMIS115 (*Prerequisite: CMIS101*)

Program Requirements

Course Name	Course #	Cr.
Accounting for Small Business	ACCT 105	3
International Business	BUSN 260	3
Typing II (<i>Prerequisite: CMIS105</i>)	CMIS 140	3
Speedwriting I	CMIS 145	3
Business Communications I	CMIS 180	3
Records Management	CMIS 190	3
Voice Transcription: Business	CMIS 225	3
Business Calculators	CMIS 240	3
Advanced Document Processing	CMIS 245	3
Office Administration	CMIS 270	3
Electives		6

Suggested Electives

Course Name	Course #	Cr.
Introduction to Business	BUSN 135	3
Business Mathematics	CMIS 155	3
Speedwriting II	CMIS 150	3
Organizational Behavior	MGMT 250	3
Field Experience	CMIS 290	3

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing, and Technology career pathway.

INDUSTRIAL TECHNOLOGY

Applied Science
Associate

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 -- 2 credits
BUSN251

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, ANTH260, ANTH265, ECON215, ECON216, HIST250, HIST251, HIST252, HIST253, HIST255, HIST257, PSYC120, PSYC221, PSYC223, or PSYC225

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 3 credits
CMIS115 (*Prerequisite: CMIS101*)

Program Requirements

Course Name	Course #	Cr.
Concepts of Electricity	ELEC 100	3
Basic CNC Operation	INDS 102	2
Metallurgy and Heat Treatment	INDS 130	2
Basic Machine Operation	INDS 220	3
Basic Fluid Power	INDS 253	3
Manufacturing Processes	INDS 260	2
Industrial Quality Control	INDS 270	2
Introduction to College Physics II	PHYS 112	3
Technical Drafting I	TDSN 100	3
Reading Engineering Drawings	TDSN 105	2
Layout & Precision Measurement	TDSN 106	2
Geometric Dimensioning & Tolerancing	TDSN 125	2
Introduction to CAD	TDSN 250	3
Industrial Communications	TDSN 103	4
Welding Technology Electives		3

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

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.



INFORMATION SYSTEMS

Graduates of this program have a knowledge of business concepts and skill in the use of several types of electronic office equipment and are prepared for employment as information processing secretaries or administrative secretaries. Advancement may be attained for students who wish to further specialize in related fields.

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications -- 3 credits
ENGL100

Oral Communications -- 3 credits
CMIS185 (*Prerequisite: CMIS180*)

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

Mathematics -- 4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 3 credits
CMIS115 (*Prerequisite: CMIS101*)

Program Requirements

Course Name	Course #	Cr.
Accounting for Small Business	ACCT 105	3
Typing II (<i>Prerequisite: CMIS105</i>)	CMIS 140	3
Microcomputer Applications	CMIS 175	3
Business Communications I	CMIS 180	3
Records Management	CMIS 190	3
Voice Transcription: Business	CMIS 225	3
Business Calculators	CMIS 240	3
Advanced Document Processing	CMIS 245	3
Office Administration	CMIS 270	3
Electives		8-9

Suggested Electives

Course Name	Course #	Cr.
Introduction to Business	BUSN 135	3
Organizational Behavior	MGMT 250	3
Speed Writing I	CMIS 145	3
Field Experience	CMIS 290	3

AN INFORMATION PROCESSING ASSISTANT CERTIFICATE PROGRAM IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing, and Technology career pathway.



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
CMIS185 (*Prerequisite: CMIS180*)

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

Mathematics -- 4 credits
MATH100 or higher. (The math requirement may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of the following (courses must have differing prefixes and only one may be a foreign language): ARTS120, MUSI101, MUSI110, ENGL195, ENGL200, ENGL201, ENGL212, ENGL220, ENGL221, ENGL265, PHIL220, PHIL221, PHIL222, FREN120, FREN121, GERM101, GERM 102, SPAN130, or SPAN131

Computer Literacy -- 3 credits
CMIS115 (*Prerequisite: CMIS101*)

Program Requirements

Course Name	Course #	Cr.
Accounting for Small Business	ACCT 105	3
Emergency Health Care	AHEA 100	2
Typing II (<i>Prerequisite: CMIS105</i>)	CMIS 140	3
Speedwriting I	CMIS 145	3
Business Communications I	CMIS 180	3
Records Management	CMIS 190	3
Medical Terminology	CMIS 215	3
Medical Office Procedures	CMIS 220	3
Voice Transcription: Medical	CMIS 235	3
Business Calculators	CMIS 240	3
Advanced Document Processing	CMIS 245	3
Office Administration	CMIS 270	3
Electives		1

Suggested Electives

Course Name	Course #	Cr.
Introduction to Business	BUSN 135	3
Organizational Behavior	MGMT 250	3
Speedwriting II	CMIS 150	3
Microcomputer Applications	CMIS 175	3
Field Experience	CMIS 290	3

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing, and Technology career pathway.



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 ladder 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).

ASSET, COMPASS, or ACT testing is required for reading and math with minimum ASSET scores of 41 or equivalent COMPASS or ACT scores. Detailed information about the nursing programs is in the nursing brochure that is available from Student Services. It includes the Tracking List Request Form that determines admission into each of the following:

- ❖ On-Campus Practical Nursing (PN) Program – starts each fall semester
- ❖ Off-Campus Practical Nursing (PN) Program – starts each spring semester
- ❖ Advanced Standing Associate Degree Nursing Program for LPNs – starts each fall semester

Admission into the nursing programs 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.

Legal Consideration: 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 or NCLEX-RN. Individuals with a conviction history must inform the Board of Nursing of the circumstances for which subsequent determination should be made regarding licensure eligibility in the State of Michigan.

General Education Requirements

All general education courses, except POLI110 or POLI240, require a grade of C or better. These courses can only be repeated once.

Written Communications -- 3 credits

ENGL100 (prior to admission into the PN program)

Oral Communications -- 1.5 credits

*NURS121A (may be taken one year prior to admission)

Laboratory Science -- 12-20 credits

All science courses must be taken within 7 years of entry into the first clinical course.

BIOL100 is a prerequisite to BIOL202 but may be waived with completion of a higher level biology course for LPNs returning to the ADN program, or for those who have earned a grade of B or better each semester in high school biology, chemistry and one other science course within the last 5 years.

BIOL201 (can be taken concurrently with NURS253)

BIOL202 (prior to admission to the PN program)

BIOL203 (prior to admission to the On-Campus PN Program but can be taken concurrently with the Off-Campus PN Program)

CHEM105 (or one year of high school chemistry in the last 7 years earning a grade of C or better) prior to admission to the ADN program

Mathematics -- 4 credits

MATH100 (or one year of high school algebra earning a grade of C or better within the last 5 years prior to admission to the PN program). Students must also meet AHEA106 math competency.

Social Science -- 6-7 credits

POLI240 or POLI110 and PSYC120 (prior to NURS227)

Humanities -- 3 credits

PHIL222 (prior to admission to the ADN program)

Computer Literacy -- 0.5 credits
*NURS121B or competency testing (prior to admission to the ADN program)

PN LEVEL

Program Requirements

The following courses require a grade of C+ or better and can be repeated only once.

Course Name	Course #	Cr.
Dosages & Solutions for Nursing & Allied Health**	AHEA 106	1
Fundamentals of Nursing Care	NURS 101	5
Nursing Care of the Adult Client I	NURS 103	6
Nursing Care of the Adult Client II	NURS 105	6
Nutrition & Diet Therapy in Nursing***	NURS 111	2
Nursing Care of the Adult Client III	NURS 119	5
Introduction to Communication Concepts in Nursing***	NURS 121A	1.5
Nursing Issues & Trends	NURS 126	0.5
Nursing Care of the Childbearing Family	NURS 146	3
Nursing Care of Children	NURS 147	3
Pharmacology of Nursing I	NURS 164	1
Pharmacology of Nursing II	NURS 165	1

ADN LEVEL

Program Requirements

The following courses require a grade of C+ or better and can be repeated only once.

Course Name	Course #	Cr.
Introduction to Computer Concepts in Nursing**	NURS 121B	0.5
Advanced Nursing Care of the Adult Client	NURS 253	10
Community Mental Health	NURS 227	5
Nursing Care of the Childbearing Family	NURS 246	3
Nursing Care of Children	NURS 247	3
Leadership & Management	NURS 257	3

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.

*These courses require a minimum grade of C+.

**Requirement may also be met by competency testing.

***These courses may be taken up to one year prior to admission.

ADVANCED STANDING

This program provides a means for the Licensed Practical Nurse (LPN), holding a valid, unencumbered license and able to document a minimum of 1000 hours (6 months full time) nursing experience within the last two years 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).

Time frames for the science courses are waived for advanced standing students who are currently working. The time frame for math is waived with successful completion of the Dosages and Solutions examination.

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 brochure available in Student Services. It is important for the LPN to complete the Advanced Standing Tracking List to assure timely admission into the ADN program.

CAREER PATHWAY

This program corresponds to the Health Services career pathway.



RADIOGRAPHY

(ARTICULATED PROGRAM)

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

Some prerequisite courses may apply to this program.

Program Requirements

(at Montcalm Community College)

Course Name	Course #	Cr.
Anatomy and Physiology I *		
(Prerequisite: BIOL100 or BIOL105)	BIOL 202	4
Anatomy and Physiology II*	BIOL 203	4
Introductory Chemistry *	CHEM 105	4
Introduction to Computer Information Systems*		
(Prerequisite: CMIS101)	CMIS 115	3
Medical Terminology *	CMIS 215	3
Speech	COMM210	3
Freshman English I*	ENGL 100	3
Elementary Algebra*	MATH 100	4
Introduction to Social Science I	POLI 110	4
General Psychology	PSYC 120	3

*These courses are prerequisite to Mid Michigan's Radiography program. Additionally, HUM200 Modernity & Culture (3 credits) is to be taken at MMCC or equivalent credit earned. All courses must have a C or better to transfer except BIOL202 and BIOL203 that require a B minimum. Science and math courses must have been completed within five years of the date the student begins the program. All documents, testing, and prerequisites should be completed and submitted to MMCC by May 20 for students to be eligible to begin Radiography classes by fall at MMCC. Admission into the program is dependent upon available space; however, MCC has been guaranteed a minimum of two slots each academic year. Students must contact John Skinner, Mid-Michigan's Director of the Radiography Program, at (989) 386-6646 once each semester. MCC students accepted in MMCC's Radiography Program will be allowed to enroll in RAD courses at the MMCC in-district tuition rate.

Program Requirements

(at Mid Michigan Community College)

Course Name	Course #	Cr.
Introduction to Radiologic Technology	RAD 100	3
Radiation Physics	RAD 110	3
Principles of Radiation Exposure	RAD 115	3
Radiographic Positioning I	RAD 130	4
Radiographic Positioning II	RAD 175	3

Clinical Requirements

(arranged locally)

Course Name	Course #	Cr.
Concepts in Microbiology	BIOL 110	1
Clinical Education I	RAD 200	8
Clinical Issues in Radiography I	RAD 201	2
Radiologic Techniques I	RAD 215	2
Radiologic Techniques II	RAD 217	2
Clinical Education II	RAD 220	9
Clinical Issues in Radiography II	RAD 221	1
Clinical Education III	RAD 225	5
Clinical Issues in Radiography III	RAD 226	1
Radiographic Quality Assurance	RAD 230	1

CAREER PATHWAY

This program corresponds to the Health Services career pathway.

SMALL BUSINESS DEVELOPMENT/MANAGEMENT

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

Some prerequisite courses may apply to this program.

General Education Requirements

Written Communications -- 3 credits
ENGL100

Oral Communications -- 2 credits
BUSN251

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

Mathematics -- 4 credits
MATH100 or higher. (The math requirement
may also be met through competency testing.)

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

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of
the following (courses must have differing pre-
fixes and only one may be a foreign language):
ARTS120, MUSI101, MUSI110, ENGL195,
ENGL200, ENGL201, ENGL212, ENGL220,
ENGL221, ENGL265, PHIL220, PHIL221,
PHIL222, FREN120, FREN121, GERM101,
GERM 102, SPAN130, or SPAN131

Computer Literacy -- 3 credits
CMIS115 (*Prerequisite: CMIS101*)

Program Requirements

Course Name	Course #	Cr.
Accounting for Small Business	ACCT 105	3
Tax Accounting	ACCT 246	3
Legal Environment of Business	BUSN 200	3
International Business	BUSN 260	3
Speech	COMM210	3
Principles of Macroeconomics	ECON 215	3
Business Management	MGMT 235	3
Marketing	MRKT 233	3
Retailing	MRKT 234	3
Advertising	MRKT 248	3
Microcomputer Applications	CMIS 175	3
Electives		3-4

Suggested Electives

Course Name	Course #	Cr.
Principles of Accounting I	ACCT 115	4
Principles of Accounting II	ACCT 116	4
Computerized Accounting	ACCT 212	4
International Business		
Practice Firm	BUSN 283	3
Field Experience	MGMT 292	4-5

**A SMALL BUSINESS DEVELOPMENT/MAN-
AGEMENT CERTIFICATE PROGRAM IS ALSO
AVAILABLE.**

CAREER PATHWAY

This program corresponds to the Business, Manage-
ment, Marketing, and Technology career pathway.



TECHNICAL DRAFTING & DESIGN

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 draftsman 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 -- 2 credits
BUSN251

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,
ANTH260, ANTH265, ECON215, ECON216,
HIST250, HIST251, HIST252, HIST253, HIST255,
HIST257, PSYC120, PSYC221, PSYC223, or
PSYC225

Humanities -- 4 credits
HUMN100, HUMN200, HUMN201 or two of
the following (courses must have differing pre-
fixes and only one may be a foreign language):
ARTS120, MUSI101, MUSI110, ENGL195,
ENGL200, ENGL201, ENGL212, ENGL220,
ENGL221, ENGL265, PHIL220, PHIL221,
PHIL222, FREN120, FREN121, GERM101,
GERM 102, SPAN130, or SPAN131

Computer Literacy -- 2 credits
CMIS101, CMIS115, a higher level CMIS com-
puter course, or competency testing.

Program Requirements

Course Name	Course #	Cr.
Basic Machine Operation	INDS 220	3
Basic Fluid Power	INDS 253	3
Manufacturing Processes	INDS 260	2
Technical Drafting I	TDSN 100	3
Industrial Communication	TDSN 103	4
Descriptive Geometry	TDSN 110	3
Geometric Dimensioning & Tolerancing (<i>Prerequisite: TDSN105</i>)	TDSN 125	2
Technical Drafting II	TDSN 130	3
Tool and Die Design I*	TDSN 135	2
Tool and Die Design II*	TDSN 136	2
Product Design	TDSN 215	3
Jig & Fixture Design	TDSN 230	3
Introduction to CAD	TDSN 250	3
Advanced AutoCAD Applications	TDSN 251	3

**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.

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.

COMPUTER REPAIR

This certificate program provides students training in the installation, maintenance, and upgrading of hardware and software used in personal computers. Students may develop sufficient skills for A+ Certification created by the Computer Technology Industry Association. Many of the credits earned in this program are applicable toward the Computer Repair associate degree.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Customer Relations	BUSN 251	2
Computer Literacy	CMIS 101	2
Exploring the Internet	CMIS 110	1
Introduction to Computer Information Systems	CMIS 115	3
Introduction to Programming & Logic	CMIS 130	3
Introduction to College Writing II or Freshman English I*	DVED 171	2
	ENGL 100	3
Concepts of Electricity	ELEC 100	3
Electronic Fabrication	ELEC 105	1
Digital Logic	ELEC 130	3
Computer Repair I	ELEC 171	3
Computer Repair II	ELEC 172	3
Technical Writing for Business and Industry	INDS 140	3
Elementary Algebra	MATH 100	4

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

AN ASSOCIATE OF APPLIED SCIENCE DEGREE IN COMPUTER REPAIR IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.

COSMETOLOGY

This Michigan Department of Commerce Division of Licensing and Regulations-approved program prepares students to take the State Licensing Board Examination. Over 900 hours are spent in lab work 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% 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.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Customer Relations*	BUSN 251	2
Computer Literacy**	CMIS 101	2
Introduction to Cosmetology	COSM 100	3
Beginning Hairstyling	COSM 101	3
Beginning Hair Cutting & Permanent Waving	COSM 102	3
Beginning Hair Coloring & Professional Development	COSM 103	3
Introduction to Cosmetology Lab	COSM 110	4
Beginning Hairstyling Lab	COSM 111	4
Beginning Hair Cutting & Permanent Waving Lab	COSM 112	4
Beginning Hair Coloring & Professional Development Lab	COSM 113	4
Advanced Hairstyling	COSM 200	3
Advanced Hair Coloring & Permanent Waving	COSM 201	3
Advanced Hairstyling II	COSM 202	3
Salon Management & Board Review	COSM 203	3
Advanced Hairstyling Lab	COSM 210	5
Advanced Hair Coloring & Permanent Waving Lab	COSM 211	5
Advanced Hairstyling II Lab	COSM 212	5
Salon Management & Board Review Lab	COSM 213	5

**CMIS185, COMM210, COMM220, or ENGL212 may be substituted.*

***Requirement may also be met through competency testing.*

AN ASSOCIATE OF APPLIED SCIENCE DEGREE IN COSMETOLOGY MANAGEMENT IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Human Services career pathway.

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
Introduction to Criminal Justice	CRIM 100	3
Introduction to Corrections	CRIM 110	3
Corrections Institutions/Facilities Communication in Criminal Justice	CRIM 120	3
Legal Issues in Corrections	CRIM 220	3
Client Relations in Corrections	CRIM 250	3
Client Growth and Development	CRIM 260	3
Freshman English I	ENGL 100	3
Freshman English II	ENGL 101	3
Introduction to Social Science I	POLI 110	4

ASSOCIATE OF APPLIED SCIENCE DEGREES IN CRIMINAL JUSTICE/CORRECTIONS AND CRIMINAL JUSTICE/GENERAL AND A CORRECTIONS OFFICER TRAINING PROGRAM ARE ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Human Services career pathway.

CUSTOMER ENERGY SPECIALIST

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

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Principles of Accounting I	ACCT 115	4
Introduction to Business	BUSN 135	3
Legal Environment of Business	BUSN 200	3
Introduction to Computer Information Systems (Prerequisite: CMIS101)	CMIS 115	3
Business Communications I (Prerequisite: CMIS101)	CMIS 180	3
Speech	COMM210	3
Concepts of Electricity	ELEC 100	3
Electronic Fabrication	ELEC 105	1
Electronic Circuit Analysis	ELEC 110	3
Freshman English I	ENGL 100	3
Principles of Marketing	MRKT 233	3
Introduction to College Physics I	PHYS 111	3
Technical Drafting I	TDSN 100	3
Introduction to CAD	TDSN 250	3
Advanced AutoCAD Applications	TDSN 251	3
Trigonometry (Prerequisites: MATH100 and MATH104)	MATH 120	3

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.



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	BUSN 251	2
Introduction to College Writing II or Freshman English I*	DVED 171 ENGL 100	2 3
Concepts of Electricity	ELEC 100	3
Electronic Fabrication	ELEC 105	1
Electrical Circuit Analysis	ELEC 110	3
Electronic Devices	ELEC 120	3
Digital Logic	ELEC 130	3
Electronic Circuits	ELEC 210	3
Digital Electronics	ELEC 230	3
Microprocessors	ELEC 240	3
Industrial Electrical Maintenance I	ELEC 251	2
Applied Algebra or Elementary Algebra*	MATH 110 MATH 100	2 4
Applied Geometry or Intermediate Algebra*	MATH 111 MATH 104	2 4

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

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

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.

INFORMATION PROCESSING ASSISTANT

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

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Introduction to Computer Information Systems (Prerequisite: CMIS101)	CMIS 115	3
Typing II (Prerequisite: CMIS105)	CMIS 140	3
Business Mathematics	CMIS 155	3
Microcomputer Applications	CMIS 175	3
Business Communications I	CMIS 180	3
Business Communications II	CMIS 185	3
Voice Transcription: Business	CMIS 225	3
Advanced Document Processing	CMIS 245	3
Office Administration	CMIS 270	3
Desktop Publishing	CMIS 280	3

AN ASSOCIATE DEGREE IN INFORMATION
SYSTEMS IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing and Technology career pathway.



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 or Freshman English I*	DVED 171 ENGL 100	2 3
Machine Tool Theory	INDS 100	2
Basic CNC Operation	INDS 102	2
Metallurgy and Heat Treatment	INDS 130	2
Basic Machine Operation	INDS 220	3
Advanced Machine Operation	INDS 221	3
Basic Fluid Power	INDS 253	3
Manufacturing Processes	INDS 260	2
Industrial Quality Control	INDS 270	2
Applied Algebra or Elementary Algebra*	MATH 110 MATH 100	2 4
Applied Geometry or Intermediate Algebra*	MATH 111 MATH 104	2 4
Reading Engineering Drawings	TDSN 105	2
Layout and Precision Measurement	TDSN 106	2
Welding Technique and Joint Preparation	WELD 107	3

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

AN INDUSTRIAL TECHNOLOGY ASSOCIATE DEGREE IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.



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 will be 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 ASSET, 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%) in each medical assistant course. In all other required courses, students must earn a minimum grade of C.

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 may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Computer Literacy**	CMIS 101	2
Business Communications I	CMIS 180	3
Medical Terminology	CMIS 215	3
Emergency Health Care	AHEA 100	2
Foundations of Medical Assisting	AHEA 109	2
Clinical Procedures	AHEA 111	4
Medical Laboratory Procedures	AHEA 112	4
Medical Insurance and Coding	AHEA 113	2.5
Medical Administrative Procedures	AHEA 114	2.5
Pharmacology in Allied Health	AHEA 115	3
Body Systems and Disease	AHEA 116	3
or Introduction to Anatomy and Physiology*	BIOL 105	4
Externship	AHEA 126	6

**BIOL105 is recommended for those with adequate background who are considering an associate degree.*

***Requirement may also be met through competency testing.*

CAREER PATHWAY

This program corresponds to the Health Services career pathway.



NANNY

This program provides a comprehensive and historical review of the various issues and responsibilities relating to nannies providing in-home childcare. It emphasizes professional ethics, communication skills, and household management and organization as well as the health, safety, and educational needs of the children in their care. Additional specific issues relating to hygiene, common illnesses, care for mothers with infants, and employment contract issues will be studied. Students completing this program will understand the rights and responsibilities of nannies employed in a private home setting.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Emergency Health Care	AHEA 100	2
Business Mathematics	CMIS 155	3
Dealing with Stress	DVED 120	1
Child Development: Infant & Toddler	ECDV 110	3
Child Development: Pre-school Infant/Toddler & Pre-school Curriculum	ECDV 130	3
Children with Special Needs	ECDV 160	3
Home Management and Organization	ECDV 170	3
Nutrition and Menu Planning	FSMT 140	3
General Psychology	PSYC 120	3
Child Psychology	PSYC 221	3

To receive certification the student must attach copies of 1) Current Red Cross or American Heart first aid and CPR certification and 2) valid chauffeur's license to their Petition to Graduate.

CAREER PATHWAY

This program corresponds to the Human Services career pathway.

OFFICE ASSISTANT

This curriculum prepares students for employment in a variety of office occupations and includes the development of skills and knowledge needed to carry out routine office functions. Previous keyboarding experience is desirable. Students wishing to continue training may apply credits earned toward the computer information or management programs.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Accounting for Small Business	ACCT 105	3
Introduction to Computer Information Systems (Prerequisite: CMIS101)	CMIS 115	3
Typing II (Prerequisite: CMIS105)	CMIS 140	3
Business Mathematics	CMIS 155	3
Microcomputer Applications	CMIS 175	3
Business Communications I	CMIS 180	3
Business Communications II	CMIS 185	3
Voice Transcription: Business	CMIS 225	3
or Voice Transcription: Medical	CMIS 235	3
Business Calculators	CMIS 240	3
Office Administration	CMIS 270	3

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing and Technology career pathway.

PRACTICAL NURSING: OFF & ON CAMPUS

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 Brochure that is available from Student Services. 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.

Legal Consideration: 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 inform the Board of Nursing of the circumstances for which subsequent determination should be made regarding licensure eligibility in the State of Michigan.

Program Prerequisites

(ASSET, COMPASS, or ACT testing is required for reading and math with minimum ASSET scores of 41 or equivalent COMPASS or ACT scores.)

Course Name	Course #	Cr.
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These courses have a grade requirement of C or better and can be repeated only once. All college science courses must be taken within 7 years of entry into the first clinical course.

Freshman English I	ENGL 100	3
Elementary Algebra	MATH 100	4
<i>MATH100 (or one year of high school algebra earning a grade of C or better within the last 5 years)</i>		

Biological Science	BIOL 100	4
<i>May be waived with completion of a higher level biology course or for those who have earned a grade of B or better each semester in high school biology, chemistry, and one other science course within the last 5 years.</i>		
Anatomy & Physiology I	BIOL 202	4
Anatomy & Physiology II	BIOL 203	4
<i>Required prior to the On-Campus program but can be taken concurrently with the Off-Campus program.</i>		

Program Requirements

(The following courses require a grade of C+ or better and can be repeated only once.)

Course Name	Course #	Cr.
Dosages and Solutions for Nursing & Allied Health*		
	AHEA 106	1
Fundamentals of Nursing Care	NURS 101	5
Nursing Care of the Adult Client I	NURS 103	6
Nursing Care of the Adult Client II	NURS 105	6
Nutrition & Diet Therapy in Nursing**	NURS 111	2
Nursing Care of the Adult Client III	NURS 119	5
Introduction to Communication Concepts in Nursing**	NURS 121A	1.5
Nursing Issues & Trends	NURS 126	0.5
Nursing Care of the Childbearing Family	NURS 146	3
Nursing Care of Children	NURS 147	3
Pharmacology in Nursing I	NURS 164	1
Pharmacology in Nursing II	NURS 165	1

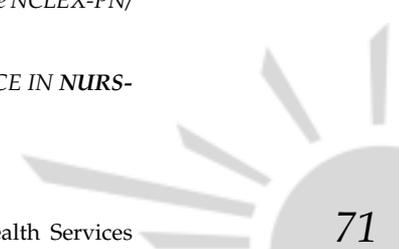
*Requirement may also be met through competency testing.
 **These courses may be taken up to one year prior to admission.

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.

CAREER PATHWAY

This program corresponds to the Health Services career pathway.



SMALL BUSINESS DEVELOPMENT/MANAGEMENT

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	ACCT 105	3
Legal Environment of Business	BUSN 200	3
Customer Relations	BUSN 251	2
International Business	BUSN 260	3
Introduction to Computer Information Systems (Prerequisite: CMIS101)	CMIS 115	3
Business Mathematics	CMIS 155	3
Microcomputer Applications	CMIS 175	3
Business Management	MGMT 235	3
Marketing	MRKT 233	3
Retailing	MRKT 234	3
Elective		1

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

CAREER PATHWAY

This program corresponds to the Business, Management, Marketing, and Technology career pathway.

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	BUSN 251	2
Computer Literacy	CMIS 101	2
Basic Machine Operation	INDS 220	3
Basic Fluid Power	INDS 253	3
Manufacturing Processes	INDS 260	2
Applied Algebra	MATH 110	2
or Elementary Algebra*	MATH 100	4
Applied Geometry	MATH 111	2
or Intermediate Algebra*	MATH 104	4
Technical Drafting I	TDSN 100	3
Industrial Communication	TDSN 103	4
Reading Engineering Drawings	TDSN 105	2
Technical Drafting II	TDSN 130	3
Introduction to CAD	TDSN 250	3
Advanced AutoCAD Applications	TDSN 251	3

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

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

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.



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.
Customer Relations	BUSN 251	2
Introduction to College Writing II or Freshman English I**	DVED 171 ENGL 100	2 3
Metallurgy and Heat Treatment	INDS 130	2
Basic Machine Operations	INDS 220	3
Basic Fluid Power	INDS 253	3
Applied Algebra or Elementary Algebra**	MATH 110 MATH 100	2 4
Industrial Communication (Prerequisites: CMIS101 or CMIS102)	TDSN 103	4
Reading Engineering Drawings	TDSN 105	2
Layout and Precision Measurement	TDSN 106	2
Welding Technique and Joint Preparation	WELD 107	3
Welding and Fabrication I	WELD 108	3
Welding and Fabrication II	WELD 120	3
Related Welding Skills	WELD 122	3

**The college does not certify welders.*

***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.

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.



APPRENTICESHIP TRAINING

Students in this program must be employed and sponsored by their employer and a training agreement must be set up between the employer, the employee and the Bureau of Apprenticeship and Training. MCC coordinates the training plan and provides related instruction. Each 16-week semester usually includes 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 training program depends on employment status and achievement levels. The sample schedule of related instruction below is for apprentice tool-and-die makers. The actual program requirements may vary with the training agreement. Programs for machinists, electricians, plastic mold designers, mold-and-die makers and welders are also available.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Computer Literacy	CMIS 101	2
or Introduction to Windows	CMIS 102	1
Machine Tool Theory	INDS 100	2
Basic CNC Operation	INDS 102	2
Metallurgy & Heat Treatment	INDS 130	2
Industrial Safety	INDS 155A	1.5
Industrial First Aid	INDS 155B	0.5
Industrial Quality Control	INDS 270	2
Applied Algebra	MATH 110	2
Applied Geometry	MATH 111	2
Applied Right Angle Trigonometry	MATH 112	2
Applied Oblique Angle Trigonometry	MATH 113	2
Industrial Communication	TDSN 103	4
Reading Engineering Drawings	TDSN 105	2
Layout & Precision Measurement	TDSN 106	2
Tool and Die Design I	TDSN 135	2
Tool and Die Design II	TDSN 136	2
Introduction to CAD	TDSN 250	3
TIG Welding	WELD 125	2

CAREER PATHWAY

This program corresponds to the Engineering/Manufacturing and Industrial Technology career pathway.

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.

Some prerequisite courses may apply to this program.

Program Requirements

Course Name	Course #	Cr.
Child Development: Infants & Toddlers	ECDV 110	3
Child Development: Preschoolers Infant/Toddler & Preschool Curriculum	ECDV 120	3
Administration of Early Childhood Programs	ECDV 130	3
	ECDV 150	3

AN ASSOCIATE DEGREE IN EARLY CHILDHOOD DEVELOPMENT IS ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Human Services career pathway.

CORRECTIONS OFFICER TRAINING

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

Program Requirements

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

AN ASSOCIATE DEGREE IN CRIMINAL JUSTICE/CORRECTIONS AND A CERTIFICATE PROGRAM IN CRIMINAL JUSTICE/CORRECTIONS ARE ALSO AVAILABLE.

CAREER PATHWAY

This program corresponds to the Human Services career pathway.

EMERGENCY MEDICAL TECHNICIAN

In this program 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 training program includes lecture, lab, and clinical time as approved by the Michigan Department of Consumer and Industry Services, Bureau of Health Services. Successful students are eligible to take the National Registry exam for EMT-Basic and may receive licensure. The program can be completed by taking AHEA200 in one semester or by taking AHEA200A and AHEA200B in a two-semester sequence.

Program Requirements

Course Name	Course #	Cr.
Emergency Medical Technician or Medical First Responder*	AHEA 200	9.5
and MFR-EMT Articulation	AHEA 200A	3.5
	AHEA 200B	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 Consumer and Industry Services.*

CAREER PATHWAY

This program corresponds to the Health Services career pathway.



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 healthcare 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.

Program Requirements

Course Name	Course #	Cr.
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Long-Term-Care Nurse Assistant	AHEA 103	3.5
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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 completing this program. A criminal history check will be done before students are allowed into clinical agencies.

CAREER PATHWAY

This program corresponds to the Health Services career pathway.

MEDICAL FIRST RESPONDER

This introduction to pre-hospital emergency medicine includes critical interventions for ill and injured patients prior to the arrival of an ambulance. The student will learn basic anatomy and physiology, patient assessment, bandaging, splinting, oxygen administration, and how emergency medical services systems function. Upon successful completion, students will receive a Healthcare Provider CPR card and be eligible to challenge the National Registry examination for Medical First Responder and apply for licensure through the Michigan Department of Consumer and Industry Services, Bureau of Health Services.

Program Requirements

Course Name	Course #	Cr.
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Medical First Responder	AHEA 200A	3.5
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This course articulates into AHEA200B which leads successful students to eligibility for licensure as an Emergency Medical Technician.

CAREER PATHWAY

This program corresponds to the Health Services career pathway.

MEDICAL INSURANCE & CODING

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. Students will 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. Students successfully completing this course will have the skills necessary for employment as medical billers and coders in physician's offices.

Program Requirements

Course Name	Course #	Cr.
Medical Insurance & Coding	AHEA 113	2.5

CAREER PATHWAY

This program corresponds to the Health Services career pathway.

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.

Program Requirements

Course Name	Course #	Cr.
Nurse Assistant	AHEA 105	5

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 completing this program. A criminal history check will be done before students are allowed into clinical agencies.

CAREER PATHWAY

This program corresponds to the Health Services career pathway.



P HLEBOTOMY

The theory and practical skills necessary for securing employment in the medical field as an entry-level phlebotomist are presented. Included are laboratory-related documentation, regulations, OSHA and Bloodborne Pathogen protocols, specimen collection, labeling, processing and storage, and practice in actual venipuncture techniques using a variety of equipment and capillary blood collections. Presented by medical technologists certified by the American Society of Clinical Pathologists and usually offered in a four-week format, this is also a great refresher course for individuals re-entering the workforce or meeting continuing education requirements.

Program Requirements

<i>Course Name</i>	<i>Course #</i>	<i>Cr.</i>
Basic Phlebotomy Technique	AHEA 102	3

CAREER PATHWAY

This program corresponds to the Health Services career pathway.





COURSE DESCRIPTIONS

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.

Accounting/ACCT
Acting/THEA
Advertising/MRKT
Algebra/DVED or MATH
Allied Health/AHEA
American Sign
 Language/COMM
Analytic Geometry/MATH
Anatomy/BIOL
Anthropology/ANTH
Applied Math/MATH
Apprentice/INDS & TDSN
Art/ARTS
Art Appreciation/ARTS
Biology/BIOL
Blueprint Reading/TDSN
Botany/BIOL
Business
 Communications/CMIS
Business Law/BUSN
Business Mathematics/CMIS
Calculus/MATH
Ceramics/ARTS
Chemistry/CHEM
Child Development/ECDV
Communications/COMM
Composition/ENGL
Computer Applications/
CMIS
Computers/CMIS
Corrections/CRIM
Cosmetology/COSM
Criminal Justice/CRIM
Data Processing/CMIS
Directed Studies/See subject
Drafting & Design/TDSN
Drama/THEA
Drawing/ARTS
Early Childhood
 Development/ECDV
Economics/ECON
Education/EDUC
Electronics-Industrial/ELEC

Emergency Health Care/
AHEA
Emergency Medical
 Technician/AHEA
English/ENGL
Executive Secretary/CMIS
Fitness/PHED
Food Service/FSMT
French/FREN
General Business/BUSN
Geography/GEOG
Government/POLI
Heat Treatment Metals/INDS
History/HIST
Humanities/HUMN
Hydraulics/INDS
Industrial Electronics/ELEC
Information Systems/CMIS
Journalism/COMM
Keyboarding/CMIS
Law-Business/BUSN
Law Enforcement/CRIM
Literature/ENGL
Machine Lab Apprentice/
 INDS
Machine Shop/INDS
Management/MGMT
Marketing/MRKT
Mathematics/MATH
Mathematics-Business/CMIS
Medical Assistant/AHEA
Medical Information
 Systems/CMIS
Medical Insurance &
 Coding/AHEA
Medical Terminology/CMIS
Metallurgy Theory /INDS
Mold & Die Design
 Apprentice/TDSN
Music/MUSI
Nursing-Practical/NURS
Nursing-ADN/NURS
Office Assistant/CMIS
Oral Interpretation/ENGL
Painting/ARTS
Philosophy/PHIL
Phlebotomy/AHEA
Photography/ARTS
Physical Education/PHED
Physical Science/PHYS
Physics/PHYS
Physiology/BIOL

Plastics/INDS
Political Science/POLI
Practical Nursing/NURS
Psychology/PSYC
Reading/DVED
Religion/PHIL
Safety and First Aid/
 INDS or AHEA
Sculpture/ARTS
Secretarial Studies/CMIS
Shop Drawing/TDSN
Shorthand/CMIS
Sketching/ARTS
Small Business/ACCT
Social Science/POLI or SOCI
Sociology/SOCI
Spanish/SPAN
Speech/COMM
Speedwriting/CMIS
Statistics/MATH
Supervision and
 Management/MGMT
Taxation-Business/ACCT
Technical Drafting/TDSN
Theater/THEA
Tool & Die Apprentice/TDSN
Transcription/CMIS
Trigonometry/MATH
Typewriting/CMIS
Welding Technology/WELD
Word Processing/CMIS
Writing/ENGL or DVED
Zoology/BIOL



COURSE DESCRIPTIONS

ACCOUNTING

ACCT105 Accounting for Small Business

(3 credit, 3 lecture, 0 lab) [Minimum score of 39 on ASSET Reading or 75 on COMPASS Reading and 39 on ASSET Numerical Skills or 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. (This course is also available as an Internet course.)

ACCT115 Principles of Accounting I

(4 credit, 4 lecture, 0 lab) [Minimum score of 39 on ASSET Reading or 75 on COMPASS Reading and 39 on ASSET Numerical Skills or 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. This course is normally offered only in fall semesters. (This course is also available as an Internet 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. This course is normally offered only in spring semesters. (This course is also available as an Internet course.)

ACCT212 Computerized Accounting

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

This course covers the installation, set up, and operation of computerized accounting software and will include 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 Health Care Provider CPR.

AHEA101 Explorations in Nursing & Health Careers

(1 credit, 1 lecture, 0 lab)

This course will assist students toward gaining a knowledge base of careers in health care. Throughout the course emphasis will be 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 will be explored.

AHEA102 Basic Phlebotomy Technique

(3 credit, 1.5 lecture, 3 lab)

This course will present the theory and practical skills necessary for securing employment in the medical field as an entry level phlebotomist. Upon successful completion, students will have an understanding of laboratory-related docu-

**Course
Descriptions**

mentation, 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 will also be covered.

**AHEA103 Long-Term Care
Nurse Assistant**

(3.5 credit, 2 lecture, 3 lab)

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 healthcare 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)

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.

**AHEA106 Dosages & Solutions
Nursing/Allied Health**

(1 credit, 1 lecture, 0 lab) [MATH100 or a minimum score of 40 on ASSET Elementary Algebra test or 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)

In this course students will learn about the role of the medical assistant in a variety of healthcare 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

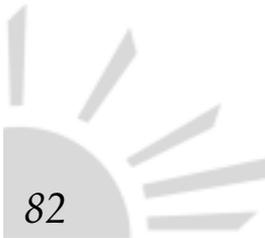
(4 credit, 2 lecture, 4 lab) [CMIS215 and AHEA116 or BIOL105]

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) [CMIS215 and AHEA116 or BIOL105]

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 will be covered in this course. Students will 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

(2.5 credit, 2 lecture, 1 lab) [CMIS215]

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 operational procedures.

AHEA115 Pharmacology for Allied Health

(3 credit, 2.5 lecture, 1 lab) [CMIS215 and AHEA116 or BIOL105]

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 will be discussed. Basic mathematical dosage calculations and basic principles for medication administration will also be included and practiced in a correlating lab session. The responsibility of the medical assistant in understanding and administering drugs and safety for the client will be emphasized.

AHEA116 Body Systems and Disease

(3 credit, 3 lecture, 0 lab) [Pre or corequisite: CMIS215]

This course is designed for the medical assistant and other allied health students. It is a one-semester non-laboratory based course that will provide 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

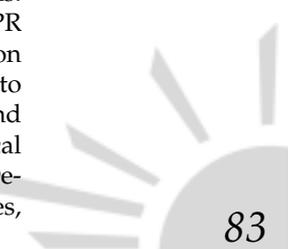
(6 credit, 1 lecture, 10 lab) [Completion of all other courses in curriculum.]

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 will review the externship experience and discuss job readiness, resume preparation, certification, and continuing education.

AHEA200 Emergency Medical Technician

(9.5 credit, 6 lecture, 7 lab)

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 prehospital 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 will 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 Consumer and Industry Services, Bureau of Health Services.



**Course
Descriptions**

**AHEA200A Medical First
Responders**

(3.5 credit, 3 lecture, 1 lab)

This course will introduce the student to pre-hospital emergency medicine, including critical interventions for ill and injured patients prior to the arrival of an ambulance. The student will learn basic anatomy and physiology, patient assessment, bandaging, splinting, oxygen administration, and how emergency medical services systems function. Students will 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 Consumer and Industry Services, Bureau of Health Services. 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. The student will 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 Consumer and Industry Services, Bureau of Health Services.

ANTHROPOLOGY

ANTH260 Cultural Anthropology

(3 credit, 3 lecture, 0 lab) [Minimum score of 41 on ASSET Reading Skills or 80 on COMPASS Reading test]

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 the student 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 will have the opportunity to enhance their educational experience and earn additional credit by participating in the optional field labs.

ARCHAEOLOGY

**ARCH102 Fieldwork in Michigan
Archaeology**

(3 credit, 0 lecture, 4 lab)

This course provides the student with an introduction to 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 will be 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 will also be explored and students will 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 will practice formation of characters with emphasis on harmonious proportions. Studio work will include 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.

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.

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

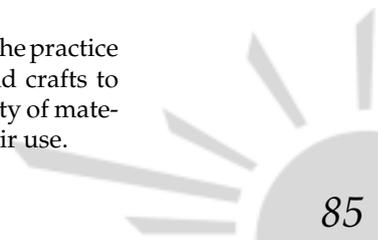
(3 credit, 2 lecture, 1 lab)

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.



**Course
Descriptions**

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

**AUTO220 Engine Tune-up
Performance Update**
(1 credit, 0 lecture, 1 lab)

This course is a review and update of the operation, diagnosis, and servicing of the following automotive systems: 1) emission control systems, 2) computerized engine control systems,

3) conventional and advanced ignition systems, 4) advanced fuel management systems. Successful completion of this course allows a technician to comply with the requirements for continuing certification as established by the Bureau of Automotive Regulation.

**AUTO221 Electrical
Systems Update**
(1 credit, 0 lecture, 1 lab)

This course is a review and update of the operation, diagnosis, and the servicing of the following automotive electrical systems: 1) starting and charging systems including battery service, and 2) chassis electrical systems including lighting, warning and driver information systems.

BIOLOGICAL SCIENCES

BIOL100 Biological Science
(4 credit, 3 lecture, 2 lab) [Minimum scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

This course provides a basic general education in some major biological sciences (botany, ecology, genetics and zoology) and also a basis for individuals to relate to their total environment. It presents an opportunity for students to evaluate their own interest and potential in the biological sciences.

**BIOL104 Introduction to
Human Biology**
(4 credit, 4 lecture, 0 lab) [Minimum scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

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 scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

This course provides the student with a one-semester introduction to human anatomy and physiology. The mechanisms by which the body maintains homeostasis (a relatively stable internal environment) will be emphasized throughout the course.

BIOL110 Botany

(4 credit, 3 lecture, 2 lab) [Minimum scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

This course introduces the Fungi and Plant Kingdoms, their major groups and their natural communities. Students visit representative habitats, observing, collecting, preserving, identifying and studying the native specimens found there. Students also learn plant anatomy, physiology, reproduction, and the major divisions and families of the plant kingdom. Structure-function interrelationships from the cellular to whole plant level, with emphasis on the angiosperms (flowering plants) found in the North Central states are also covered. Some of the laboratory time is spent

BIOL115 Zoology

(4 credit, 3 lecture, 2 lab) [Minimum scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

BIOL115 is intended for students transferring to 4-year institutions intending to major in biology or zoology. This class is an in-depth study of Kingdom Animalia and some information about Kingdom Protista. The laboratory section will include dissections of several of the major phyla.

BIOL121 College Biology I

(4 credit, 3 lecture, 2 lab) [Minimum scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

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

BIOL122 College Biology II

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

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

BIOL201 Microbiology

(4 credit, 3 lecture, 2 lab) [BIOL100 or BIOL105 or both BIOL110 and BIOL115; Pre- or corequisite: CHEM105 or CHEM220]

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

BIOL202 Anatomy & Physiology I

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

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, tissues, cellular metabolism, 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.

BIOL203 Anatomy & Physiology II

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

This continuation of BIOL202 covers the special senses, the digestive system, the endocrine system, the respiratory system, blood, the cardiovascular system, the lymphatic system, the urinary system, water and electrolyte balance, the reproductive system and human genetics. Laboratory exercises are performed throughout the semester and related clinical applications and pathophysiology are discussed when appropriate. Homeostatic mechanisms pertinent to current lecture topics are emphasized and the course offers the opportunity to observe a human cadaver.

BIOL208 Nature Study

(4 credit, 2 lecture, 3 lab)

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

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 a historical and contemporary perspective. Topics include business organization, management, marketing, finance, legal and regulatory environment, and global opportunities.

BUSN200 Legal Environment of Business

(3 credit, 0 lecture, 3 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

(2 credit, 2 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. This course is normally offered only in spring semesters.

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 US.

BUSN265 An Investigation of Leadership

(3 credit, 2 lecture, 2 lab) [CMIS175 and MGMT250]

Various aspects of leadership will be explored including the influence of motivation, organizational change, and organizational structure. Students will be exposed to contemporary models of leadership and will be 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 International Business Practice Firm

(3 credit, 3 lecture, 0 lab) (This course should be taken during a student's final semester.)

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. Each student will be assigned a specific job title within the International Business Practice Firm (IBPF) and as such

must perform his or her duties according to a defined job description. The IBPF is a consortium of colleges and trade schools in the United States and several countries around the world. Each school creates a practice business firm that operates within a closed virtual global economy doing virtual business with each other. The business students in the class manage all phases of the practice business firm.

CHEMISTRY

CHEM105 Introductory Chemistry

(4 credit, 3 lecture, 2 lab) [Minimum scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

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 scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET or 38 on COMPASS Writing Skills test, & DVED163, MATH075, or 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

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 this course is fundamental (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 will involve experiments illustrating topics discussed in lecture. This course is a prerequisite for higher-level chemistry courses.

COMPUTER INFORMATION SYSTEMS

CMIS100 Keyboarding

(1 credit, 0 lecture, 2 lab)

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

CMIS101 Computer Literacy

(2 credit, 2 lecture, 1 lab) [Pre- or corequisite: CMIS100 or CMIS105]

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

CMIS102 Introduction to Windows

(1 credit, 0 lecture, 2 lab)

This course teaches students the fundamentals and skill necessary to adequately use the computer operating system, Microsoft Windows.

CMIS105 Typing I

(3 credit, 3 lecture, 1 lab) [Pre- or corequisite: CMIS101]

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

CMIS110 Exploring the Internet

(1 credit, 1 lecture, 1 lab) [CMIS101]

This course covers the history of the Internet and the variety of its functions. Course topics include communicating over the Internet, using search engines and evaluating credible information, creating Web pages, using multimedia files, and discussing societal issues concerning the Internet.

CMIS115 Introduction to Computer Information Systems

(3 credit, 2 lecture, 2 lab) [CMIS101 & minimum score of 37 on the ASSET Reading Skills or 69 on COMPASS Reading test]

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

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

(3 credit, 2 lecture, 2 lab) [CMIS101 and minimum score of 41 on ASSET Numerical Skills or 44 on COMPASS Pre-Algebra test]

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

CMIS131 Introduction to Programming C++

(3 credit, 2 lecture, 2 lab) [CMIS101 and minimum score of 41 on ASSET Numerical Skills or 44 on COMPASS Pre-Algebra test]

This course investigates problem solving using the C++ programming language. Emphasis is on input/output, iteration, pointers, arrays, arithmetic operations, and various related topics.

CMIS132 Introduction to HTML Programming

(3 credit, 2 lecture, 2 lab) [CMIS101 and minimum score of 41 on ASSET Numerical Skills or 44 on COMPASS Pre-Algebra test]

This course investigates problem solving using the HTML programming language. Participants will develop and publish Web pages utilizing fundamental HTML coding techniques. Emphasis will include 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 will also be considered.

CMIS133 Network Management

(3 credit, 2 lecture, 2 lab) [CMIS115]

This hands-on course introduces students to the concepts, principles, and skills necessary to network managers. The student successfully completing this course will be competent in the skills necessary to install, manage, and troubleshoot network management systems. While a specific networking system will be utilized, the skills acquired will be transportable to a variety of network management systems. This course also prepares the student to write the Microsoft Windows certification.

CMIS135 Typewriting Improvement

(2 credit, 2 lecture, 0.5 lab) [CMIS100 or CMIS105]

This course is designed to improve students' typewriting speed and accuracy skills. It includes pre-testing, diagnosing problem areas, typing extensive drills, and post testing on the students' progress.

CMIS140 Typing II

(3 credit, 0 lecture, 4 lab) [CMIS105]

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

CMIS145 Speed Writing I

(3 credit, 3 lecture, 1 lab) [CMIS105]

This course covers a complete, working knowledge of an alphabetic speed writing system. It develops skills in reading and fluency in writing. This knowledge can be applied to a professional setting or personal tasks.

CMIS150 Speed Writing II

(3 credit, 3 lecture, 1 lab) [CMIS145]

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

CMIS153 Microsoft Outlook— CORE Certification

(1 credit, 0 lecture, 2 lab)

This open-lab course provides an introduction to Microsoft Outlook. Students will work with the following features of Outlook: electronic mail, calendar and appointments, contacts, tasks, journals and notes, and folders. As a final activity, students will take the MOUS CORE level certification exam.

CMIS154 Microsoft Frontpage

(1 credit, 0 lecture, 2 lab) [CMIS101 or CMIS100 and CMIS102]

This open-lab course provides an introduction to Microsoft FrontPage. Students will create, edit, and publish Web-based documents.

CMIS155 Business Mathematics

(3 credit, 3 lecture, 0 lab) [Minimum score of 40 on ASSET Numerical Skills or COMPASS Pre-Algebra test]

This course deals with practical application of mathematics concepts and fundamentals in business situations. Topics include retail, accounting, finance, and statistics. Many of the problems deal with solving equations through algebraic methods so students must have some algebra background.

CMIS156 Microsoft Word— CORE Certification

(1 credit, 0 lecture, 2 lab) [CMIS101 or CMIS100 and CMIS102]

In this open-lab course, an introduction to Microsoft Word will be presented. Students will create, edit, and print documents. This course prepares students for beginning Microsoft Word certification.

CMIS157 Microsoft Excel— CORE Certification

(1 credit, 0 lecture, 2 lab) [CMIS101 or CMIS100 and CMIS102]

In this introduction to Microsoft Excel, students will create and edit worksheets and charts. This open-lab course prepares students for beginning Microsoft Excel certification.

CMIS158 Microsoft Access— CORE Certification

(1 credit, 0 lecture, 2 lab) [CMIS101 or CMIS100 and CMIS102]

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

CMIS159 Microsoft Powerpoint— CORE Certification

(1 credit, 0 lecture, 2 lab) [CMIS101 or CMIS100 and CMIS102]

This open-lab course provides an introduction to Microsoft PowerPoint. Students create, edit, and run slide show presentations. As a final activity, students will take the MOUS CORE level certification exam.

CMIS175 Microcomputer Applications

(3 credit, 2 lecture, 2 lab) [CMIS115]

This continuation of CMIS115 further develops word processing, spreadsheet, database, and presentation software techniques using Microsoft Office. Intermediate skills using Word, Excel, Access, and PowerPoint are developed with a substantial hands-on component.

**Course
Descriptions**

CMIS176 Microsoft Publisher

(1 credit, 0 lecture, 2 lab) [CMIS101 or CMIS100 and CMIS102]

This open-lab course provides an introduction to Microsoft Publisher. Students will work with the following features of Publisher: creating, editing, designing and printing desktop publishing documents.

**CMIS180 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.

**CMIS185 Business
Communications II**

(3 credit, 3 lecture, 0 lab) [CMIS180]

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.

CMIS190 Records Management

(3 credit, 0 lecture, 4 lab) [CMIS115 or CMIS158]

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.

CMIS215 Medical Terminology

(3 credit, 0 lecture, 4 lab)

This open-lab course is a study of medical terminology and assists medical secretarial, nursing, and science students in mastering medical terms. Students are prepared to pursue additional education in the medical environment.

**CMIS220 Medical Office
Procedures**

(3 credit, 0 lecture, 4 lab) [CMIS105 and CMIS215]

This open-lab course focuses on the duties and responsibilities of those working in the medical environment while being introduced to the procedures of the medical profession. Students develop a marketable skill in the use of computer software for the medical office.

**CMIS225 Voice Transcription:
Business**

(3 credit, 0 lecture, 4 lab) [CMIS140]

This open-lab course stresses development of business transcription skills with the operation of cassette tape transcribers at the computer. Typing proficiency, grammar, and punctuation, and proofreading skills are emphasized while creating business documents.

**CMIS235 Voice Transcription:
Medical**

(3 credit, 0 lecture, 4 lab) [CMIS140 and CMIS215]

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

CMIS240 Business Calculators

(3 credit, 0 lecture, 4 lab) [CMIS155 and CMIS125 or CMIS157 or CMIS175]

This open-lab course emphasizes business math concepts. Students are introduced to the electronic calculator and micro-numeric keypad using Excel spreadsheets.

**CMIS245 Advanced Document
Processing**

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

This open-lab course provides experience with beginning through advanced features of Microsoft Word. Desktop publishing is introduced.

CMIS250 Microcomputer Spreadsheets

(3 credit, 2 lecture, 2 lab) [CMIS175]

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

(3 credit, 0 lecture, 4 lab) [CMIS175]

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 will be presented, as well as substantial hands-on database development.

CMIS257 Advanced Microsoft Excel—EXPERT Certification

(1 credit, 0 lecture, 2 lab) [CMIS157]

This course provides experience using advanced features of Microsoft Excel in an open-lab format. Students will apply advanced features to worksheets and charts as they prepare for Microsoft Excel advanced certification.

CMIS258 Advanced Microsoft Access—EXPERT Certification

(1 credit, 0 lecture, 2 lab) [CMIS158]

This open lab course provides advanced level instruction in Microsoft Access. Students will create and edit databases, reports, and queries. As a final activity, students will take the MOUS EXPERT level certification exam.

CMIS260 Advanced Microcomputer Applications

(3 credit, 2 lecture, 2 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.

CMIS265 Systems Concepts/Design

(4 credit, 2 lecture, 4 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) [CMIS140]

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 Advanced Desktop Publishing

(3 credit, 0 lecture, 4 lab) [CMIS101 or CMIS102]

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

CMIS290 Field Experience

(3 credit, 0 lecture, 3 lab) [Written instructor approval]

This course consists of a carefully planned cooperative work experience in the office. Students must complete 12 hours per week of approved work experience arranged by the instructor and show evidence of satisfactory progress through employer reports and instructor visits to the office site.



COMMUNICATION

COMM125 Elementary American Sign Language I

(3 credit, 3 lecture, 0 lab)

This course provides students the opportunity to learn sign-language skills. It covers learning the alphabet, numbers and words, and interpreting sentences, songs and stories.

COMM126 Elementary American Sign Language II

(3 credit, 3 lecture, 0 lab) [COMM125]

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

COMM160 Journalism

(3 credit, 3 lecture, 0 lab)

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

COMM210 Speech

(3 credit, 2 lecture, 1 lab)

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)

This course is designed to increase the student's ability to understand interpersonal communication in social and professional areas. Students will be introduced to theories and ethics behind interpersonal communication and be able to evaluate message strategies in interpersonal communication contexts, select and apply communication strategies to establish mutually rewarding 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 score of 37 on ASSET Reading Skills or 69 on COMPASS Reading test]

This course is an orientation to the science of cosmetology and includes cosmetology laws and rules, sterilization and sanitation techniques and policies, the study of bacteriology pursuant to sterilization and sanitation, basic hair shaping and finger waving, shampoos and rinses, and scalp treatments.

COSM101 Beginning Hairstyling

(3 credit, 3 lecture, 0 lab) [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 score of 37 on ASSET Reading Skills or 69 on COMPASS Reading test, 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 hair-cutting, 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

(variable credit) [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 score of 40 on ASSET Reading Skills or 80 on COMPASS Reading test]

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 provided. 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, and students demonstrate those most appropriate for them.

CRIM120 Corrections Institutions/Facilities

(3 credit, 3 lecture, 0 lab) [Minimum score of 40 on ASSET Reading Skills or 80 on COMPASS Reading test]

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)

This course is for students pursuing careers in criminal justice or those already employed within the system. It explores the evolution of administrative theory with special emphasis on its impact and application at the operational level of law enforcement agencies.

CRIM130 Criminal Investigation

(3 credit, 3 lecture, 0 lab)

This course covers the basic principles of modern criminal investigation techniques including crime scene search, collection and preservation of evidence, follow-up investigation, police criminalistics, and court preparation and testimony.

CRIM135 Report Writing for Line Officers

(1 credit, 0 lecture, 1 lab)

This course focuses on and provides the skills needed for the proper completion of forms used to document prisoner misconduct and other significant events in a criminal justice setting.

CRIM136 Communication in Criminal Justice

(3 credit, 3 lecture, 0 lab)

This course addresses the communication needs of persons working in the field of criminal justice. It approaches communication as a continuing process of receiving and transmitting information between individuals, groups, and agencies. The course focuses on the unique responsibilities of line officers to perceive, evaluate, document, and disseminate information in a variety of mediums. Students examine the relationship between oral, written, and multimedia communication and their appropriate use in criminal justice environments. The course is applicable for all criminal justice students.

CRIM137 PPCT Defensive Tactics

(2 credit, 1 lecture, 2 lab)

This course is designed to meet MLEOTC requirements for defensive tactics to prepare correctional officer training students for employment at a local corrections facility.

CRIM138 Emergency Intervention Techniques

(2 credit, 1 lecture, 2 lab)

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.

*Course
Descriptions*

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 score of 40 on ASSET Reading Skills or 80 on COMPASS Reading test]

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 and more traditional community resources. Examination of the roles and capabilities of federal, state, and local agencies is central.

CRIM240 Introduction to Security Systems

(3 credit, 3 lecture, 0 lab)

This course is for students employed or interested in a career in the broad field of public and private security administration. Topics range from application of technology to management styles affecting loss prevention.

CRIM250 Client Relations in Corrections

(3 credit, 3 lecture, 0 lab) [Minimum score of 40 on ASSET Reading Skills or 80 on COMPASS Reading test]

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 score of 40 on ASSET Reading Skills or 80 on COMPASS Reading test]

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 agencies. It supplements previous classroom study through participation in US or foreign criminal justice systems.



ACADEMIC SKILLS DEVELOPMENT

DVED108 Problem Solving

(3 credit, 0 lecture, 3 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 assessment results, which lead to 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.

DVED150 Developmental Reading I

(1 credit, 0 lecture, 1 lab)

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

DVED151 Developmental Reading II

(1 credit, 0 lecture, 1 lab)

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

DVED152 Developmental Reading III

(1 credit, 0 lecture, 1 lab) [DVED151 or minimum score of 35 on ASSET Reading Skills or 64 on COMPASS Reading test]

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

DVED153 Developmental Reading IV

(1 credit, 0 lecture, 1 lab) [DVED152 or minimum score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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

DVED156 Efficient Study

(3 credit, 3 lecture, 0 lab)

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

**Course
Descriptions**

DVED160 Arithmetic Review I

(1 credit, 0 lecture, 1 lab)

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

DVED161 Arithmetic Review II

(1 credit, 0 lecture, 1 lab) [Prerequisite: Minimum score of 35 on ASSET Numerical Skills or 24 on COMPASS Pre-Algebra test or Corequisite: DVED160]

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

DVED162 Systems of Measurement

(1 credit, 0 lecture, 1 lab) [DVED161 or minimum score of 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

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

DVED163 Pre-algebra

(1 credit, 0 lecture, 1 lab) [DVED161 or minimum score of 39 on ASSET Numerical Skills or 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 CMIS155, CMIS115, PHYS101, ELEC100, 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. This course is strongly recommended for students who score below 35 on the ASSET writing skills test.

DVED171 Introduction to College Writing II

(2 credit, 0 lecture, 2 lab) [DVED170 or minimum score of 35 on the ASSET Writing Skills or 38 on COMPASS Writing test]

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

DVED175 Improving Reading & Writing

(3 credit, 2 lecture, 1 lab)

This course offers an opportunity to improve communication skills in 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 will attend both a lecture/discussion session (scheduled) and an open lab session (to be arranged through the Skills Development Lab) each week.



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 score of 39 on ASSET Reading or 75 on COMPASS Reading test]

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) [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 32 hours observing preschoolers in the field.

ECDV130 Infant/Toddler & Preschool Curriculum

(3 credit, 3 lecture, 0 lab)

This course explores the curriculum guides needed in an infant/preschool education concentrating on the social, emotional, creative, physical, and cognitive skill development and needs of infants, toddlers, and preschoolers. Through this course, students will gain the skills necessary to plan developmentally appropriate curriculum and will have the opportunity to gain hands-on experience in the areas of small and large group leading and lesson plan implementation. ECDV110 or ECDV120 are recommended prerequisites.

ECDV140 Michigan Child Care Futures: Basics

(1 credit, 1 lecture, 0 lab)

This course provides basic comprehensive training for family and group childcare providers. This meets the child development training requirements for state licensing standards for group and family childcare homes.

ECDV141 Michigan Child Care Futures: Advanced

(1 credit, 1 lecture, 0 lab) [ECDV140]

This course provides advanced training for family and group childcare providers. This meets the child development training requirements for state licensing standards for group and family childcare homes.

ECDV142 Michigan Childcare: Special Needs

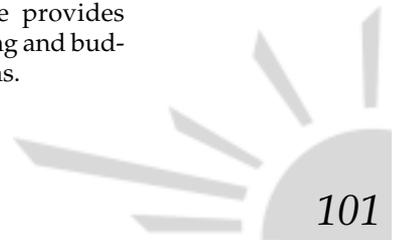
(1 credit, 1 lecture, 0 lab)

This course provides special health care needs training to family, group, and center childcare providers. Training can be used toward the child development training requirements for State licensing standards for group childcare homes, as an elective for the Early Childhood Development Associate degree, and as a Child Development Associate (CDA) credential.

ECDV150 Administration of Early Childhood Programs

(3 credit, 3 lecture, 0 lab)

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)

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.

ECDV170 Home Management & Organization

(3 credit, 3 lecture, 0 lab)

This comprehensive and historical review of the various issues and responsibilities relating to nannies providing in-home childcare emphasizes professional ethics, communication skills, and household management and organization. Additional specific issues relating to health, safety, hygiene, common illnesses, care for mothers with infants, and employment contract issues will be studied. Students completing this course will understand the rights and responsibilities of nannies employed in a private home setting.

ECONOMICS

ECON215 Principles of Macroeconomics

(3 credit, 3 lecture, 0 lab) [Minimum score of 39 on ASSET Reading or 75 on COMPASS Reading test]

This course provides an introductory exposure to macroeconomics. The course materials focus on the measurement of the national economy, gross national product, inflation and unemployment, and the principles for controlling the economy through taxes, spending, and monetary policy.

ECON216 Principles of Microeconomics

(3 credit, 3 lecture, 0 lab) [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 or not to pursue K-12 teaching as a profession.

ELECTRICITY/ ELECTRONICS

ELEC100 Concepts of Electricity

(3 credit, 2 lecture, 2 lab) [Minimum score of 41 on ASSET Numerical Skills or 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.

ELEC105 Electronic Fabrication

(1 credit, 0 lecture, 2 lab) [ELEC100]

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.



ELEC110 Electrical Circuit

Analysis

(3 credit, 2 lecture, 2 lab) [ELEC100, pre- or corequisite: MATH120]

This course emphasizes the analysis of passive electrical circuits. Network theorems are applied in both DC and AC applications and phasor analysis, the j operator, poly phase circuits and equipment calibration are discussed.

ELEC120 Electronic Devices

(3 credit, 2 lecture, 2 lab) [ELEC110]

This course includes many electrical and electronic components including inductors, capacitors, transformers, diodes, transistors, and integrated circuits. Applications such as filters, resonant circuits, and basic amplifier configurations are used to reinforce knowledge.

ELEC130 Digital Logic

(3 credit, 2 lecture, 2 lab) [ELEC100]

This foundation course presents digital concepts in combinational and sequential logic. Topics include number systems, logic gates, flip-flops, registers and basic troubleshooting techniques. The course includes a survey of digital applications in computer systems and industrial control.

ELEC171 Computer Repair I

(3 credit, 1 lecture, 3 lab) [Pre- or corequisites: ELEC100 and CMIS101 or CMIS102]

This is the first of two courses that introduces students to entry-level skills used in personal computer repair. Topics include PC assembly; component specifications; installation and configuration of MS-DOS and Windows software; memory optimization; resolution of hardware and software conflicts; and keyboard, mouse, and laser printer maintenance. Lab time emphasizes hands-on use of computers and problem-solving techniques. Material is relevant to the A+ Certification Exam for computer technicians.

ELEC172 Computer Repair II

(3 credit, 1 lecture, 3 lab) [ELEC171, pre- or corequisite: ELEC130]

This is the second course that prepares students in personal computer repair skills. Topics include installation and configuration of a floppy disk, hard disk, and CD-ROM drives; system memory, video cards; sound cards and Win-

dows 95. Also, resolving hardware and software conflicts, and an introduction to networking are covered. Lab time emphasizes hands-on use of computers and problem-solving techniques. Material is relevant to the A+ Certification Exam for computer technicians.

ELEC210 Electronic Circuits

(3 credit, 2 lecture, 2 lab) [ELEC120]

This course presents electronic component applications and covers basic power supplies, regulated power supplies and amplifiers including audio, RF, and power types and some basic digital and pulse circuitry. Construction and analysis of these circuits and proper soldering and desoldering techniques are included in the laboratory experiments.

ELEC230 Digital Electronics

(3 credit, 2 lecture, 2 lab)

This course presents techniques used in building and analyzing digital circuitry and includes numbering and coding systems, digital logic gates, Boolean algebra, combinational and sequential logic circuits, and applications.

ELEC240 Microprocessors

(3 credit, 2 lecture, 2 lab) [Pre- or corequisite: ELEC120]

This course is a continuation of ELEC230 and includes microcomputer basics and assembly language programming, interfacing memory, A/D converters and other I/O devices.

ELEC250 State Electrical Code

(2 credit, 2 lecture, 0 lab) [ELEC100 or current electrician license]

This course is a study of the arrangement, indexing, content, and application of the State Electrical Code. It is for those with sound electrical/electronics training and experience and for electrician licensing needs.

ELEC251 Industrial Electrical Maintenance I

(2 credit, 0 lecture, 2 lab) [ELEC100]

This course is for students who have an understanding of electrical basics and want to learn more about industrial motors and controls. Included is study of the State Electrical Code, wiring symbols and diagrams, motors, and basic control circuits.



**Course
Descriptions**

**ELEC252 Industrial Electrical
Maintenance II**

(2 credit, 1 lecture, 1 lab) [ELEC251]

This course is for students who have a good understanding of basic industrial motor circuits. Included is study of the State Electrical Code, timing circuits, speed control, reduced voltage starting and troubleshooting.

**ELEC253 Industrial Electrical
Maintenance III**

(2 credit, 1 lecture, 1 lab) [ELEC252]

This course emphasizes the use, selection, set up and servicing of programmable controllers and provides an understanding of the programmable controller and its logic functions, its installation and troubleshooting.

**ELEC254 Industrial Electrical
Maintenance IV**

(2 credit, 1 lecture, 1 lab) [ELEC253]

This course develops knowledge of programmable logic controllers by using them to program a robot. Also included is a study of robot types, components, safety, maintenance, and off-line computer programming.

ENGLISH

ENGL100 Freshman English I

(3 credit, 3 lecture, 0 lab) [Minimum scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 will 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 scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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**

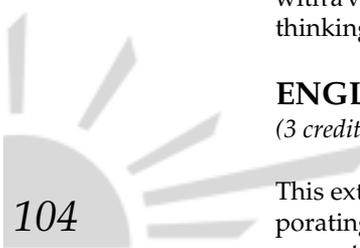
(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course surveys late 19th century and 20th century American.

ENGL212 Oral Interpretation

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course is a survey of literature for children in the elementary grades, aimed at developing techniques for using books with children, storytelling, and the criteria for book selection.

ENGL236 Youth Literature

(3 credit, 3 lecture, 0 lab) [Pre- or corequisite: ENGL100]

This is a survey of literature expressly created for youth in middle and high school age groups (12-adult). The study investigates methods, selection processes, criticism, applications, writing, education, publishing and illustration. A field component is required.

ENGL240 The Novel

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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

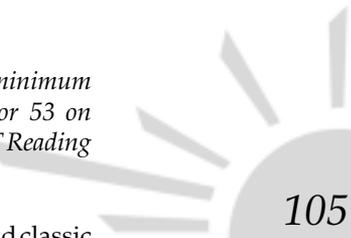
(4 credit, 4 lecture, 0 lab) [ENGL100 or minimum scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

The course is an introduction to the language, structure, history and narrative technique of film as a distinctive art form. Course work includes the reading of film theory and criticism, as well as viewing, discussing, and critically writing about short and feature-length films by major international directors.

ENGL270 Poetry

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course compares contemporary and classic examples of poetry to historically durable examples of structure and content.



**Course
Descriptions**

**ENGL280 Survey of Black
American Literature**

(3 credit, 3 lecture, 0 lab) [ENGL100 or minimum scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 scores of 38 on ASSET Writing Skills or 53 on COMPASS Writing test and 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course chronicles the contributions of female writers to the understanding of society, culture, and personal relationships. It will expose 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 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.

**FOOD SERVICE
MANAGEMENT**

**FSMT140 Nutrition and
Menu Planning**

(3 credit, 3 lecture, 0 lab)

The course illustrates normal nutrition and how food is absorbed into the body and includes menu planning with a special emphasis on nutritional value and menu attractiveness. Special projects in all areas of menu planning are included.

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, small video episodes, and student-generated.



GERM102 German II

(4 credit, 4 lecture, 0 lab) [GERM101]

This course is a continuation of GERM101 and will deepen the 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 score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course critically examines America's past from before the European takeover and domination of the North American continent until a young but increasingly powerful United States is ripped apart by Civil War. Conflicts between individualism and collectivism and nationalism and sectionalism and conflicts between social classes and ethnic groups are examined. Attention is given to social history, which involves the effort to explore history "from the bottom-up" through the eyes and everyday experiences of common, working-class people 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 score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course is a continuation of HIST250 with a similar emphasis on social history and the conflicts between individualism and collectivism, social classes, and ethnic groups as well as new conflicts between liberals and conservatives,

isolationists and imperialists and centralists and localists that remain today. The course focuses on racism, reconstruction, and Jim Crow; involvement; social, political and economic reform in the Progressive period; the World Wars; the Depression and the reform of capitalism; the Cold War and the age of affluence; the turbulent sixties; the self-indulgent seventies and the age of scarcity in an effort to understand the factors that influence America's present behavior.

HIST252 The Civil War Era

(3 credit, 3 lecture, -3 lab) [Minimum score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

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 GPAs. Prior written approval by Instructor Ken DeLong 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. We explore 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 ten-day trip living and working (volunteering with Habitat for Humanity) on an Indian Reservation in South Dakota.



**Course
Descriptions**

HIST255 Michigan History

(3 credit, 3 lecture, 0 lab) [Minimum score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course presents a broad overview of the history of the Wolverine State. Several themes; including immigration, exploration, technology, mobility, abundance and exploitation; are explored, especially as they relate to the broader picture of national history. Several important overlapping periods of Michigan history are examined in detail - from the early French explorations and fur trade through the British occupation, the logging boom, statehood, growth of commerce and shipping, agricultural development and the Age of the Automobile with the consequent industrialization and growth of the tourist industry. The course focuses on local aspects of the state's history as they relate to these themes and periods.

**HIST257 20th Century World:
History & Issues**

(3 credit, 3 lecture, 0 lab) [Minimum score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course presents a global view of the profound transformation of political, economic and international relations under the impact of the major wars and revolutions of this century. It stresses interactions between states and people, ideological and revolutionary conflicts, the evolution of the global balance of great powers, and economic development and global inequality.

HUMANITIES

HUMN100 Western Culture

(variable credit) [ENGL100 and minimum score of 37 on ASSET Reading Skills or 69 on COMPASS Reading test]

This course examines the artistic, literary and philosophical development of Western culture over the past five millennia. Regular reading assignments will provide a survey of political history and classroom presentations will 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 and minimum score of 37 on ASSET Reading Skills or 69 on COMPASS Reading test]

This course examines the artistic, literary and philosophical nature of man, integrating material from pre-Renaissance art, literature, music, philosophy and religion. This course is normally offered only in fall semesters.

HUMN201 Humanities II

(4 credit, 4 lecture, 0 lab) [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.

**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 hands-on experience in programming Computer Numerical Control systems used with machine tools. Course topics covered include circular and linear interpolation, absolute programming, Preparatory (G) and Miscellaneous (M) functions. Students write programs and transfer them on punched tapes to be used on a machine-tool simulator.

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 also find the course valuable. 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.

INDS110 Basic Pneumatics

(1 credit, 1 lecture, 0 lab)

This course illustrates how work force and energy are applied to principles of pneumatics. Operating principles of reciprocation, positive displacement and rotary and dynamic air compressors are presented. Primary and secondary air treatment; including moisture removal, oil scrubbers, contaminant filtration and lubrication; are included. Components of pneumatic systems that are focused on are valves, logic devices, cylinders and air motors.

INDS111 Basic Pneumatic Trouble Shooting

(1 credit, 1 lecture, 0 lab)

This course provides an overview of pneumatic systems. Use of schematic symbols and diagrams, proper installation of system components, planned maintenance of a pneumatic system, system diagnosis and step-by-step troubleshooting recommendations are included. Specific maintenance practices for air compressors, control valves, air motors, electrical components, and pneumatic/hydraulic hybrid systems are addressed.

INDS112 Pump Installation & Maintenance Fundamentals

(1 credit, 1 lecture, 0 lab)

This course covers the basic pumping concepts, required maintenance of packing seals, maintenance and overhaul of centrifugal pumps, and concludes with maintenance essentials of rotary pumps.

INDS113 Hydraulic Trouble-Shooting Fundamentals

(1 credit, 1 lecture, 0 lab)

This course presents a review of hydraulic systems; use of schematic diagrams; proper installation procedures, cleanliness and safety; tubing cutting, bending and flaring practices; identification and selection of proper fluid and charging the system; planned system maintenance; specific repair/replacement recommendations based on system diagnoses; and troubleshooting valves, cylinders, pumps and motors.

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 or pipefitting. The course will survey plumbing, fixtures, water supplies, drains, and traps; 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 score of 41 on ASSET Writing Skills or 65 on COMPASS Writing test]

This practical course covers technical writing style, format and techniques in order to organize, clarify, revise and prepare technical information. The course includes how to write effective memos, reports, procedures and technical documents by using proper format, grammar, and sentence and paragraph structure.

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

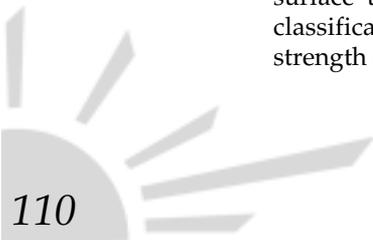
(3 credit, 1 lecture, 3 lab)

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.



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 will be 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, and 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 will be 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 43 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, troubleshooting, hydraulic symbols and formulas. Laboratory work includes demonstrations and a series of 20 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 will be stressed. Laboratory will include demonstrations and a series of projects on specialized pneumatic

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.

INDS270 Industrial Quality Control

(2 credit, 2.25 lecture, 0 lab)

This course defines the changing quality concepts of modern-day industry and further defines quality organization, quality costs, data collection, process control, customer relations and product reliability. The course encompasses theory and practical application of Statistical Process Control.

INDS271 ISO 9000

(3 credit, 3 lecture, 0 lab)

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.

MATHEMATICS

MATH050 Mathematical Bridges

(2 credit, 2 lecture, 1 lab)

This course explores basic mathematical concepts including arithmetic, problem solving, geometry, probability, statistics, and algebra using whole numbers and fractions. Students experience these concepts through hands-on models and by using technology at an elementary level.

MATH075 Transition to Algebra

(2 credit, 2 lecture, 1 lab) [MATH050 or minimum score of 39 on ASSET Numerical Skills test or 36 in COMPASS Pre-Algebra placement domain]

This course explores mathematical concepts at a slightly higher level than MATH050 using appropriate models and technology. The course prepares students for MATH100 by allowing them to experience concepts in problem solving, geometry, probability, statistics, and pre-algebra.

MATH100 Elementary Algebra

(4 credit, 4 lecture, 1 lab) [MATH075 or minimum score of 41 on ASSET Numerical Skills test or 44 in COMPASS Pre-Algebra placement domain]

This course studies beginning algebra concepts including first-degree equations and inequalities, quadratic equations, graphing linear equations, and an introduction to functions using a problem solving approach.

MATH100A Elementary Algebra, Part I

(2 credit, 2 lecture, 1 lab) [MATH075 or minimum score of 41 on ASSET Numerical Skills test or 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.

MATH104 Intermediate Algebra

(4 credit, 4 lecture, 1 lab) [MATH100 or minimum score of 40 on ASSET Elementary Algebra test or 34 in COMPASS Algebra placement domain]

This course provides the algebraic, numeric, and graphical skills necessary for the study of college algebra and analytic geometry. Topics covered include the usual topics through quadratics plus the exponential and logarithmic functions, sequences, systems of equations, and an introduction to probability.

MATH104A Intermediate Algebra, Part 1

(2 credit, 2 lecture, 1 lab) [MATH100 or minimum score of 40 on ASSET Elementary Algebra test or 34 in COMPASS Algebra placement domain]

This course is the first half of MATH104 Intermediate Algebra. The topics covered include real number operations, solving equations and problems, systems of linear equations, inequalities, sets and polynomial operations. Students must complete both 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 rational expressions and equations, irrational expressions, quadratics, exponential and logarithmic functions. 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 41 on ASSET Numerical Skills test or 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 angular 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. Functions, right triangles, and solving practical shop problems are included.

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.

MATH120 Trigonometry

(3 credit, 3 lecture, 0 lab) [MATH104 or minimum score of 40 on ASSET Intermediate Algebra test or 66 in COMPASS Algebra placement domain or 31 in College Algebra placement domain]

The right triangle is studied to introduce the trigonometric functions. These functions are also studied as circular functions of real numbers. Other topics include algebra review, verifying identities, inverse functions, Law of Sines, Law of Cosines, complex numbers, and vectors. A graphing calculator is required for this course.

MATH151 Mathematics for Elementary Teachers I

(4 credit, 3 lecture, 2 lab) [MATH100 or minimum score of 40 on ASSET Elementary Algebra test or 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. This course is offered only in the fall semester.

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. This course is offered only in the spring semester.

MATH159 College Algebra

(4 credit, 4 lecture, 0 lab) [Pre- or corequisite: MATH120]

This course covers linear and quadratic equations and inequalities (singular and systems), relations and functions, matrices, exponential and logarithmic functions, complex numbers, polynomial and rational functions, polar and parametric equations, sequences, and series. A graphing calculator is required for this course.

MATH190 Elementary Statistics

(3 credit, 3 lecture, 1 lab) [MATH100 or a minimum score of 40 on ASSET Elementary Algebra test or 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. A graphing calculator with statistical analysis capability is required for this course.



*Course
Descriptions*

**MATH250 Calculus and Analytic
Geometry I**

*(4 credit, 4 lecture, 0 lab) [MATH120 and
MATH159]*

This course covers functions, limits, continuity, differentiation, definite integrals, the Fundamental Theorem of Calculus, and applications of the derivative. A graphing calculator is required for this course.

**MATH251 Calculus and Analytic
Geometry II**

(4 credit, 4 lecture, 0 lab) [MATH250]

This course covers antiderivatives, definite integral applications, integration techniques, improper integrals, sequences and series, and differential equations. This course is normally offered only in spring semesters. A graphing calculator is required for this course.

**MATH252 Calculus and Analytic
Geometry III**

(4 credit, 4 lecture, 0 lab)

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)

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 Business Management

(3 credit, 3 lecture, 0 lab)

This course covers the problems of starting and managing a business venture and will include contemporary management practices used by successful businesses.

MGMT237 Management

(3 credit, 3 lecture, 0 lab)

This course covers, in detail, the managerial process, the purposes of organizations and how they function, and human behavior as it relates to organizations.

**MGMT250 Organizational
Behavior**

(3 credit, 3 lecture, 0 lab)

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

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. This course is normally offered only in fall semesters.

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. This course is normally offered only in fall semesters.

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 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 lab) [MUSI141]

This class is a continuation of MUSI141.

MUSI143 Voice Improvement III

(1 credit, 0 lecture, 1 lab) [MUSI142]

This class is a continuation of MUSI142.

MUSI144 Voice Improvement IV

(1 credit, 0 lecture, 1 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 in small vocal ensembles.

**Course
Descriptions**

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 in 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)

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 assist the student to become a more efficient practitioner of the communication skills that are essential to nursing. Students will also be able to explore the many ways that nurses use communication to facilitate the care for the client. The student will practice interviewing skills; observe, discuss and begin to develop therapeutic communication skills. Reporting and recording skills will be based on the nursing process. Use of computers in the professional role, exploration of the use of computers in the professional role,

exploration of the use of computers as a learning tool, and evaluation of the web sites will be a part of the course. This course is only good for two years for those students not yet accepted into the nursing program.

NURS121B Introduction to Computer Concepts in Nursing

(0.5 credit, 0 lecture, 1 lab)

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 the student 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 on assisting children to attain an optimal state of wellness, taking into consideration their individual strengths and weaknesses. The use of the nursing process in the planning of care is included in promotion of growth and development of the well child, prevention of disease, and care of the hospitalized child. The importance of family dynamics is also stressed.

*Course
Descriptions*

**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.

**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 the student an opportunity to update critical thinking skills and use of nursing process and a chance to update nursing assessment skills.

**NURS227 Community
Mental Health**

(5 credit, 2 lecture, 6 lab)

This course introduces the student to human psychosocial-social adaptation to stressors in the environment. Treatment modalities such as family therapy, behavior modifications, and reality orientation and medical and nursing interventions are presented. The nurse, using the nursing process to work with patients with varying degrees of dysfunction in a wide variety of settings, is discussed. The student works with clients in a mental health center, substance abuse center, and/or a hospital setting. The content is focused on helping students enhance their understanding of human behavior during both sickness and health and to acquire skill in interpersonal relationships and communication, as well as assessment and intervention for many mental health issues.

**NURS246 Advanced Nursing Care
of the Child- Bearing Family**

(3 credit, 1.5 lecture, 3 lab)

This course introduces the significant components of critical thinking that maternal/newborn nurses use in their everyday practice. It includes an in-depth study of the physiological and psychological aspects of contemporary maternal/newborn nursing while preparing the student for a holistic approach to care. Through a review of normal antepartum, intrapartum, postpartum, and neonatal nursing are included, the primary focus is on the development of nursing goals and interventions for the care of the high-risk mother and infant through the various stages of the childbearing process.

**NURS247 Advanced Nursing Care
of Children**

(3 credit, 1.5 lecture, 3 lab)

This course provides an overview of the nursing of children from a child-centered perspective that views children as unique individuals rather than miniature adults. The focus of nursing care is on prevention of illness and promotion of health. A theoretical basis for performance of a pediatric physical and developmental assessment are included. The development of nursing goals and interventions essential for the care of children and their families at different developmental levels and with various acute and chronic illnesses are discussed.

NURS253 Advanced Medical-surgical Nursing

(10 credit, 4 lecture, 12 lab)

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 will enable the student to apply previously learned knowledge and skills.

NURS257 Leadership and Management

(3 credit, 1 lecture, 4 lab)

This course assists the student to successfully make the transition from student to practitioner and effectively manage care of a group of clients in today's complex and rapidly changing health-care setting. In addition to addressing managed care, the course assists the student, using the framework of the nursing process, to develop professional nursing leadership skills. Special responsibilities of the leader/manager are described and practiced in the clinical setting. Decision-making skills, critical thinking, conflict resolution and delegation legalities are topics examined in the role of the professional nurse. Ethical and legal responsibilities are discussed as are aspects of professional growth and future direction for nursing leadership and management.

NURS260 Understanding Research

(2 credit, 2 lecture, 0 lab)

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

*Course
Descriptions*

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.

**Course
Descriptions**

PHED107 Cross Country Skiing

(1 credit, 0 lecture, 2 lab)

This course teaches the fundamental principles of cross country skiing. This includes use and maintenance of clothing and equipment. Basic skills are learned in the field and on trails.

PHED108 Social Dancing

(1 credit, 0 lecture, 2 lab)

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 the 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

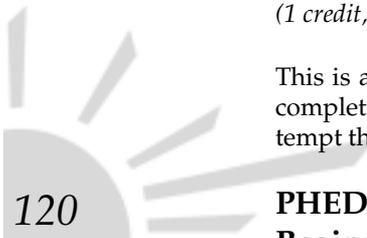
(1 credit, 0 lecture, 2 lab)

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 the basic skills acquired.

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. The student traces the historical development from its origins 600 to 1,000 years ago in Asia to its development as a modern Olympic sport. Emphasis is placed on learning the basic throwing, holding, falling and submission techniques practiced in the sport and the rules which govern competition. The student gets a unique look at the Japanese culture by understanding the development and practice of its national sport which the Japanese call "the gentle way."

PHED128 Tae Kwan 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 Kwan 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, the student learns to combine techniques into meaningful groupings to be used as methods for self-defense and Olympic-style point fighting.

PHED130 Beginning Swimming

(1 credit, 0 lecture, 2 lab)

This course includes the basic swimming strokes including the front crawl, back crawl, side stroke, breast stroke, and elementary backstroke. Safety, non-swimming rescues, swimming hygiene, water entries and survival swimming are also covered.

PHED131 Intermediate Swimming

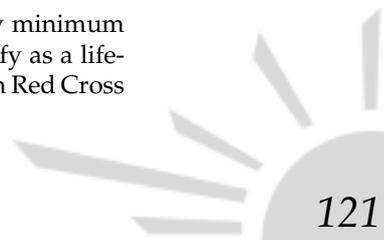
(1 credit, 0 lecture, 2 lab) [PHED130]

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.



*Course
Descriptions*

**PHED134 Water Safety Instructors
Certificate**

*(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 life-style plan which integrates exercise, diet and stress management.

**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 Philosophies and Religions. It is dedicated to the idea that philosophy is not the exclusive province of the West. The exploration of other thought; notably Native American, Asian and Middle Eastern; provides an opportunity to appreciate the uniqueness of other cultures while drawing upon the universal experience of the inner person. In addition, this study includes an inquiry into the age-old philosophical adventures of self identity, the aim of life, the quest for truth, the search for reality, and the experience of spirituality or religion.

PHIL222 Bioethics

(3 credit, 3 lecture, 0 lab)

This course covers some of the major ethical theories and their relevance to the decision-making process in the biological or health-care related fields including issues related to conception and birth, life and death, and individuals' rights.

PHYSICAL SCIENCE

PHYS101 Physical Science

(4 credit, 3 lecture, 2 lab) [Minimum scores of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, 35 on ASSET Writing Skills or 38 on COMPASS Writing test, & DVED163, MATH075, 39 on ASSET Numerical Skills or 36 on COMPASS Pre-Algebra test]

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 score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, pre- or corequisite: ENGL100 or DVED175]

This course introduces the interdisciplinary approach to the study of society and human behavior, emphasizing methodology, the development of skills necessary to study and research in the social sciences and the study of power, its use and distribution as an overall framework for examining the nature of society's strengths and weaknesses. Materials focus primarily on economics and political science with special emphasis on the rights and responsibilities of citizenship and the form and functions of government at the national, state and local levels.



POLI240 American Political System

(3 credit, 3 lecture, 0 lab) [Minimum score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test]

This course introduces politics and government at the federal level. Although in many ways it is a basic traditional survey sequence in American government, the course goes beyond the traditional examinations of government institutions (the executive, the legislature, and judiciary) to explore how the complex web of ideas, groups, personalities, and processes interact with those institutions to arrive at public policy. Within the larger context of the evolution of our present political system and the ongoing debate between liberals and conservatives, the course attempts to discover how our political culture; federal structure; the Constitution; public opinion; political socialization, campaigns and voting; pressure groups and lobbying; political parties; civil rights and liberties; public policy, foreign/defense policy and international affairs relate to power, influence, and decision-making in American politics. This course points out problem areas and inequities in development of our lives and relies on both historical and contemporary examples, stressing the present-day practice of politics to illustrate and explain the principles and processes outlined above.

POLI246 International Relations

(3 credit, 3 lecture, 0 lab)

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 score of 41 on ASSET Reading Skills or 80 on COMPASS Reading test]

This course familiarizes beginning students with the concepts and methods used by psychologists to study human behavior. Subjects covered include experimental methods, neuropsychology, memory, intelligence, learning, personality, developmental psychology, social psychology, and mental disorders.

PSYC221 Child Psychology

(3 credit, 3 lecture, 0 lab) [PSYC120]

This course will explore the manner in which psychological theory and methodology can help us understand the mental, emotional, physical, and social growth, psychology, and development of children.

PSYC223 Psychology of Sex & Gender

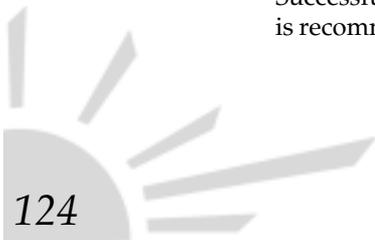
(3 credit, 3 lecture, 0 lab) [PSYC120]

Students in this course will examine how biological sex differences, societal constructions of gender, the history of gender roles, and cultural expectations combine to produce differences in the psychology of women and men. Emphasis will be on the psychosocial, emotional, and behavioral differences between men and women, and the impact these differences have on the individual and society.

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 score of 39 on ASSET Reading Skills or 75 on COMPASS Reading test, pre- or corequisite: ENGL100 or DVED175]

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 score of 41 on ASSET Reading Skills or 80 on COMPASS Reading test]

This course familiarizes beginning students with the basic concepts and methods used by sociologists to study society. It culture, social structure, social class, institutions, demography, deviance, and social change emphasizing the sociological perspective of human behavior and modes of social organization.

SOCI235 Social Problems

(3 credit, 3 lecture, 0 lab)

This course focuses on the sociological approach to social problems including mental illness, crime, poverty, family and community disintegration, violence, ecology, and current events.

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 is a continuation of SPAN130 Elementary Spanish I.

TECHNICAL DRAFTING & DESIGN

TDSN100 Technical Drafting

(3 credit, 1 lecture, 4 lab) [TDSN250]

This course links the knowledge and skills needed to create technical drawings according to current industrial and national standards. Lettering, geometric construction, sketching, multi-view projection, sectioning, basic dimensioning, and isometric, oblique and perspective projection are topics covered. Drawings are created using CAD. Prior and recent CAD knowledge would be an asset in this course.

TDSN103 Industrial Communications

(4 credit, 2 lecture, 2.5 lab) [CMIS101 or CMIS102]

This course covers the basic principles and techniques of shop drafting, stressing the essentials of geometric construction, multi-view (orthographic) drawings, dimensioning, sections, isometric and oblique drawings, auxiliary views and developments, it also allows development of the knowledge and skill necessary to accurately communicate ideas through freehand drawing to convey technical ideas, designs, and details that would typically be found in an industrial setting. CAD applications are also addressed in this course.

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 blueprints 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 will 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 graphi-

cally. 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 TDSN120]

This course emphasizes the fundamentals of plastic molding, plastic product design, types of molds, toolmaking processes, equipment and methods, materials for model making and designing and drafting practices as well as compression and transfer molds, injection molds for thermoplastics, cold mold design, extrusion dies for thermoplastics, blow mold construction and design, mold design for expanded polystyrene, and special fixtures. 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

(3 credit, 2 lecture, 2 lab) [CMIS101 or CMIS102]

In this course students use computer-generated graphics, terminology, and drawing techniques to gain an understanding of computer aided drafting (CAD). Students will apply their CAD knowledge to mechanical, design, architectural, and electronic drawings. Two-dimensional design drafting is stressed. AutoCAD software is used. No prior CAD knowledge is necessary, however, prior computer knowledge would be an asset to the student.

TDSN251 Advanced AutoCAD Applications

(3 credit, 1 lecture, 3 lab) [TDSN250]

This hands-on course provides a concentrated overview of major features utilized by advanced users of AutoCAD software. In addition to an introduction to solid modeling (3D design), students are taught the techniques to enable them to customize menus, screens, and develop personal timesaving production routines commonly found in industry. Advanced drafting concepts, shortcuts, and an overview of CAD management are 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 will learn acting skills, script analysis, and all other details of bringing a play “from the page to the stage.” Students will 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 will learn acting skills, script analysis, and all other details of bringing a play “from the page to the stage.” Students will 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 will learn acting skills, script analysis, and all other details of bring a play “from the page to the stage.” Students will 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 will learn acting skills, script analysis, and all other details of bringing a play “from the page to the stage.” Students will present performances for the public as well as area students.

WELDING

WELD107 Welding Technique & Joint Preparation

(3 credit, 1 lecture, 3 lab)

This course gives students with no welding experience the opportunity to learn welding skills and proper techniques. Rod selection and out-of-position welding are covered. Projects from home are encouraged.

WELD108 Welding and Fabrication

(3 credit, 1 lecture, 3 lab)

This course emphasizes the five basic joint designs utilizing the oxyacetylene and arc process with emphasis on the 1, 2, 3, and 4 F positions.

WELD110 Automotive Welding

(2 credit, 1 lecture, 2 lab)

This course provides students an understanding of the basic techniques, machine operations and safety rules pertaining to soldering, welding, and brazing of lighter gauge materials.

WELD120 Welding and Fabrication II

(3 credit, 1 lecture, 3 lab)

This course allows welding students to continue developing skills on the 1, 2, 3 and 4G weldments. Testing of weldments by means of destructive and nondestructive methods is used to insure students are properly developing welding skills.

WELD121 Advanced Welding

(3 credit, 1 lecture, 3 lab)

This course provides the training required for accomplishing qualification-type weldments in accordance with the A.W.S. welding code, using the S.M.A.W. process. M.I.G. procedures are also covered.

WELD122 Related Welding Skills

(3 credit, 1 lecture, 3 lab)

This course is for students needing a welding course to meet the requirements of other MCC technical programs. Students receive basic training in oxyacetylene, M.I.G. welding and oxyacetylene flame cutting.

WELD124 Agriculture & Construction Welding

(1 credit, 0.5 lecture, 1.5 lab)

This course is for those who make their own repairs on machinery. Topics include basic arc welding, basic gas welding, cast iron brazing, hard-surface application, flame cutting, and control of heat related stresses. Small, student-furnished projects are allowed but must be removed after each class.

WELD125 TIG Welding

(2 credit, 0.5 lecture, 1.75 lab)

This course is a comprehensive coverage of the Gas/Tungsten Arc Welding process, developed especially for and in consideration of the tool-and-die industry.

WELD140 SMAW Pipe Welding

(3 credit, 1 lecture, 3 lab) [WELD107 and WELD120]

This course is an overview of proper practice and procedures used in pipe and pressure vessel weldments. Students employ the Shielded Metal Arc Welding Process to produce American Welding Society test plates in the 2G, 5G, and 6G positions.



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GLOSSARY OF TERMS

ACADEMIC FREEDOM refers to the right of the student to learn and the right of the teacher to employ teaching methods that are effective in pursuing course objectives.

ACCREDITATION is recognition by an approving organization such as the North Central Association of Colleges and Schools which accredits Montcalm Community College.

ADMISSION is the acceptance of a student by a college or university entitling him or her to take classes and participate in campus activities.

ADVISOR is the person responsible for advising students regarding financial aid, class scheduling or career choice.

APPRENTICE is a person following a planned program of occupational skills that is provided by an employer and related instructional training that is provided through a community college or high school.

ASSOCIATE DEGREE is a planned degree program of approximately 60 credit hours conferred by an accredited college.

AUDIT generally means students pay regular tuition and fees for a class, but need not complete assignments or take examinations. Arrangements to audit an MCC course must be made prior to registration. The option to switch to audit status is not available after the end of the drop/add period.

BACHELOR'S DEGREE is a degree, from an accredited college or university, that is awarded upon successful completion of a prescribed major course of study of approximately 124 credit hours.

CAMPUS is the entire physical content of a college or university including all buildings and grounds.

CAREER PATHWAYS are six broad groupings of careers that share similar characteristics and whose employment requirements call for many common interests, strengths and compe-

tencies. This state initiative begins in the K-12 school system and continues through the community college.

CATALOG is the college or university publication which lists general information, college programs and course descriptions.

COMMUNITY COLLEGE is a post-secondary institution authorized to award associate degrees and certificates and offer a variety of non-degree learning experiences. Programs include liberal arts, occupational studies, adult education, business and industry training and personal enrichment opportunities.

COUNSELOR is a professional who helps students with academic, career and life planning.

CONTACT HOURS are the total hours of lecture and laboratory instruction for each class.

COREQUISITE is a required course which, if not taken ahead of time, must be taken during the same semester as another class.

CREDIT BY EXAM is available for some courses. Students must sign up for and pay full tuition for the course and then take the exam. A grade of S is issued if the exam is passed satisfactorily.

CREDIT HOURS are assigned to each class, usually reflecting the number of lecture hours per week. Additional laboratory hours are required in some courses.

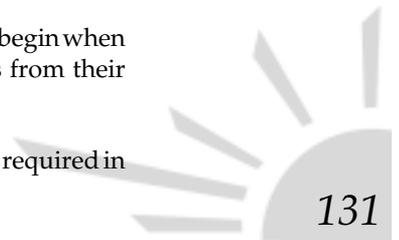
CURRICULUM is the collective term for various courses of study offered.

DROP/ADD is the time after classes begin when students may add or delete classes from their schedules without penalty.

ELECTIVE is a class not specifically required in a course of study.

ENROLL is to sign-up for classes for inclusion on the official class list or roster.

ESSAY TEST is an examination where answers to questions are written in paragraph form.



EXTRACURRICULAR ACTIVITIES are campus events, other than classes, in which students participate.

FEES are nonrefundable charges in addition to tuition.

FINAL EXAM, the last test given in a class, may include all or part of the course work covered.

FINANCIAL AID is money received from various sources to help students with college costs.

FULL-TIME STUDENTS take 12 or more credit hours of study.

GRADE POINT AVERAGE (GPA) is the cumulative numerical value of grades earned by a student determined by dividing total points by the number of credit hours.

INCOMPLETE (I) GRADES 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 semester begins in June.

SEMESTER HOUR is the measurement of time spent in class.

SENIOR CITIZEN is a person who is 60 years of age or older.

SEQUENTIAL CLASSES are courses offered consecutively with each serving as the prerequisite for the next.

SKILLS DEVELOPMENT LAB is where students develop basic reading, math and language-usage skills.

STUDENT RIGHTS include procedures for appealing grades and offering input on college or university policy-making.

SUBSTITUTION of a course required for a degree or certificate must be done in writing, signed by the appropriate instructor and instructional administrator. Forms are available in the Enrollment Services Office.

TECHNICAL STUDIES are occupationally oriented programs of learning which provide job skills for students who wish to enter the career of their choice upon the completion of their training.

TEXTBOOK is a written manual used for reference or study in a class.

TRANSCRIPT is the official record of grades from an educational institution that shows a cumulative record of course work.

TRANSFER is the process by which a student enters a college or university after having been enrolled at another institution.

TUITION is the amount of money charged for classes.

TUTOR is a person competent in a specific subject who helps students with that subject. Students either needing a tutor or wishing to be a tutor should contact the Special Populations Counselor.

WAIVING a class is sometimes possible through a competency exam. To waive a required course, a student must pass the exam and pay \$5 per credit hour. Credit hours must be made up by taking other courses.

WITHDRAWAL is the act of voluntarily dropping out of a specific class within a prescribed time. Students must initiate the request to withdraw and, if approval is granted, the instructor will assign a WP, withdrawal passing or a WF, withdrawal failing, to the transcript.



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CALENDAR

2003 Fall Semester *(tentative)*

Classes begin August 16

Classes end December 15

2004 Spring Semester *(tentative)*

Registration begins November 10

Classes begin January 7

Classes end May 6

2004 Summer Session *(tentative)*

Classes begin June 14

Classes end August 6

2004 Fall Semester *(tentative)*

Classes begin August 21

Classes end December 21

2005 Spring Semester *(tentative)*

Classes begin January 12

Classes end May 7

2005 Summer Session *(tentative)*

Classes begin June 13

Classes end August 5

Some classes may not follow the regular semester schedule. Check the schedule booklet each semester for exceptions.

For information call: 989-328-2111,
toll-free: 1-877-328-2111 or
e-mail: admissions@montcalm.edu.