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ADMISSION TO MONTCALM COMMUNITY COLLEGE

All applicants shall possess a high school diploma or, if over the age of 18 years, shall submit to an educational equivalency examination (GED).

In keeping with the "Open-Door Policy" of Montcalm Community College, exceptions may be made at the discretion of the Dean of Student Services.

HOW TO APPLY FOR ADMISSION

1. Complete an application for admission to Montcalm Community College. Applications for admission are available by contacting the MCC Admissions Office or any local high school counseling office.

2. Submit the completed application for admission and the non-refundable $5 application fee to:
   Admissions Office
   Montcalm Community College
   2800 College Drive
   Sidney, MI 48885-9746

3. Submit an official copy of complete high school transcripts or GED results to the MCC Admissions Office. Students who have attended other post-secondary educational institutions must also submit an official transcript from all other institutions.

Students are responsible for providing MCC with the above information. If a student fails to provide or falsifies this information, he/she will not be allowed to register for classes until MCC receives the necessary information or other arrangements have been made with the Dean of Student Services. Questions regarding the admissions procedure should be directed to the MCC Admissions Office at (517) 328-2111, extension 228, or the local high school counselors.

GUEST APPLICATION

A guest applicant is a student who is currently enrolled in a program at another college or university, and who wishes to complete a course at MCC as part of that program. Guest applicants may complete the regular application procedure, or complete a Guest Application Form, and receive permission to attend MCC. Guest Application Forms are usually available at the Records Office of the student’s home college or university. A student may not attend as a guest for two consecutive semesters. MCC students may wish to use the guest application form to attend a college other than MCC for one semester.

FORMER STUDENTS

MCC extends a continuous matriculation to all students in good standing with the College. Former students need to contact the Admissions Office to update their personal file and reactivate their registration status.

Dismissed students must re-apply through the Dean of Student Services Office.
POLICY AGAINST DISCRIMINATION

It is the policy of MCC that no person shall—on the basis of sex, race, religion, color, national origin, age, or handicap—be excluded from participation in, be denied the benefits of, or be subjected to discrimination in any of its programs or activities.

Mr. James Lantz is the college EEO Officer/Title IX - Section 504 coordinator. His office is located in the Library/Administration Building - telephone 517-328-2111, extension 220.
TUITION AND FEES

RESIDENTS OF MONTCALM COMMUNITY COLLEGE DISTRICT

Tuition
Fees $1 per credit hour to a maximum of $25.00 per credit hour
$12.00 per semester

(Resident of MCC district - lives within one of the public school districts of Carson City, Central Montcalm, Greenville, Lakeview, Montabella, Tri-County, and Vestaburg.)

MICHIGAN NON-DISTRICT RESIDENTS

Tuition
Fees $1 per credit hour to a maximum of $37.50 per credit hour
$12.00 per semester

OUT-OF-STATE RESIDENTS

Tuition
Fees $1 per credit hour to a maximum of $41.00 per credit hour
$12.00 per semester

OTHER FEES

*Justify No
Application for Admission (paid only once) $5
Late Registration Fee $5
Laboratory Fee $5 (per contact hour)*

*A course with a required laboratory will cost an additional $5 per student contact hour over and above the assessed credit hours charged for the course. For example: NUR102, 7 credits with 11 laboratory hours, the student will be charged for 7 credit hours and 11 additional contact hours. In-district student- 7 credit hours x $25 + 11 additional contact hours x $5 = $230.
PAYMENT OF TUITION AND FEES

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

2. The College will accept Visa and Mastercard credit cards.

3. Students who receive financial aid through the College Grant Programs shall present to the cashier a form from the Financial Aid Office to complete their enrollment. Any difference in aid and total tuition will be payable at the time of registration. If financial aid is not forthcoming, the balance will be due at the time of notification. No refunds after the drop and add deadline.

4. Short-term credit will be available upon application at least 10 days prior to the start of classes. Credit references will be required. Processing shall be completed by the end of the drop/add period. If credit cannot be authorized by that date, the applicant will be required to drop all classes. Down payment will be refunded.

CREDIT TERMS

<table>
<thead>
<tr>
<th>Amount</th>
<th>Payment Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1-$150</td>
<td>Paid in full</td>
</tr>
<tr>
<td>$151-$200</td>
<td>50% down - balance 30 days plus $5 handling fee</td>
</tr>
<tr>
<td>$201-$500</td>
<td>60% down - 50% of balance 30 days Total 60 days plus $10 handling fee</td>
</tr>
</tbody>
</table>

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.

NO OTHER CREDIT ARRANGEMENTS CAN BE MADE THROUGH THE COLLEGE
FINANCIAL AID INFORMATION

Montcalm Community College strives to make a college education possible for all qualified students. Financial aid is available in a variety of forms: scholarships, loans, grants, and work-study jobs that supplement the cost of your college education.

HOW TO APPLY FOR AID

To be considered for financial aid, students must file a Financial Aid Form (FAF). It will then be processed by the College Scholarship Service. Timing of the application is important. Students may apply for aid after January 1, and after the student or his/her parents have completed their income tax return for the past calendar year.

By completing the FAF, students will be considered for several types of financial aid. However, students may apply only for a Pell Grant by submitting just a Pell Grant application.

The Pell Grant application and the Financial Aid Form are available at MCC's Financial Aid Office or the high school guidance office.

MCC SCHOLARSHIPS

Montcalm Community College offers several scholarships each year to area high school students. Specific details about the following scholarships may be obtained from the high school counselor or MCC Financial Aid Office.

1. Board of Trustees (in-district) - two scholarships per area high school are available. These are given to students who have attained a "B" average in high school. Recipients could receive up to full tuition and fees.

2. Board of Trustees (out-district) - seven scholarships are available. These are given to students who have attained a "B" average in high school. Recipients could receive up to full tuition and fees.

3. Area High School Grants - two grants per area high school are available. Students who are recommended must apply for a Pell Grant. If ineligible for Pell, recipients could receive up to full tuition and fees from MCC.

4. Performing Arts/Music Stipend - fifteen stipends are available to students who perform in choir and band. Recipients could receive up to full tuition and fees.

5. Adult High School Completion - two scholarships are available to each high school completion program. Scholarships will cover 7 credit hours of tuition and fees (in-district rate).

6. Outstanding Achievement Awards - five awards will be available to students who have excelled in a specific area in high school. Recipients could receive up to full tuition and fees.
7. MCC Adult Scholarships - five scholarships will be available to new students over the age of 21. The amount will be $200 per semester.

8. Scholarships for High School Seniors - scholarships for three (3) MCC classes, tuition and fee free (limited to the in-district rate), may be available to students who have completed their junior year of high school with at least a B average. These courses must be taken during their senior year.

9. Scholarships for Adult High School Seniors - scholarships for three (3) MCC classes, tuition and fee free (limited to the in-district rate), may be available to students who have achieved senior status, have at least a B average, and are currently enrolled in the last quarter of their adult high school completion program. These courses must be taken during their senior year.

10. Over-60 Scholarships - tuition scholarships are available to persons age 60 or older.

11. MCC Foundation Scholarship (In-district) - one $1000 scholarship will be available annually to students entering directly from high school with a grade point average of 3.00 (B) or better and who declare a major in mathematics and/or science.

12. James Crosby Memorial Scholarship - one $1000 scholarship will be available annually to a sophomore student with a grade point average of 3.00 (B) or better and who has a letter of support from 4-H Leaders' Council.

There are also several local scholarships available each year. More information can be obtained from the Financial Aid Office.

STATE AID PROGRAMS

GUARANTEED STUDENT LOAN

Under this program, students may borrow up to $2,625 per academic grade level. This loan bears an 8% interest rate. Applications for this loan are available at many local banks and credit unions.

STATE DIRECT STUDENT LOAN

Students unable to obtain a Guaranteed Student Loan from a private lender may be eligible for a State Direct Loan. Students may borrow up to $2,625 per academic level. Students may obtain a Direct Loan application kit from the Financial Aid Office.

MICHIGAN COMPETITIVE SCHOLARSHIP

The State Scholarship program currently measures academic potential on the basis of the National ACT Exam. Eligible applicants may receive up to the amount of demonstrated need or the amount of tuition, whichever is less. Students must be Michigan residents. For more information, students may contact their high school counselor or the Financial Aid Office.
SINGLE PARENT/HOMEMAKER PROGRAM

The Single Parent/Homemaker Program was made possible through a grant provided by the Vocational Educational Department of the State of Michigan. This program is designed to assist students who are enrolled in a vocational program and who are single parent/homemakers or non-traditional job trainees.

Students applying must meet several eligibility criteria. Currently, MCC is able to provide tuition assistance to eligible students. Applications may be obtained from the Financial Aid Office.

MICHIGAN ADULT PART-TIME GRANT PROGRAM

The Michigan Adult Part-Time Grant Program is designed to provide grant assistance for needy adults who enroll at approved public or private degree-granting Michigan colleges on a part-time basis. Grants of up to $600 per year are available for not more than two years of study.

MICHIGAN EDUCATIONAL OPPORTUNITY GRANT PROGRAM

The Michigan Educational Opportunity Grant Program is designed to provide grant assistance for needy undergraduates who are enrolled on at least a half-time basis at public, Michigan colleges and universities. Grants of up to $1000 per year are available under this program.

MICHIGAN WORK-STUDY PROGRAM

The Michigan Work-Study Program is designed to provide work opportunities for needy, undergraduate students who enroll at approved public or private degree-granting, Michigan colleges on a full or part-time basis. Both non-profit and profit-based employers may sign agreements with Michigan colleges to participate in this program.

MICHIGAN AUXILIARY LOAN (PLUS) PROGRAM

Parents may borrow for their dependent children and independent undergraduate and graduate students may borrow for themselves for study at eligible schools. Requests for application forms may be made through participating Michigan lenders (banks, savings and loan associations, and credit unions).

SUPPLEMENTAL LOANS FOR STUDENTS (SLS)

Independent students, who attend an eligible college at least half-time, may borrow up to $4,000 per academic year. These loans are normally sought by students who have exhausted eligibility for other financial aid programs. Interest rates are set annually at a variable rate. Applications are available from participating banks, credit unions, or savings and loan associations.
PELL GRANT

The Pell Grant is available on the basis of demonstrated financial need. It is for undergraduate students who are attending eligible vocational schools or colleges on at least a half-time basis. These grants are based on the cost of attendance at the institution and do not exceed 50% of the cost of education. To be considered, students may file a Pell Grant application or a Financial Aid Form (FAF).

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT

These are limited funds available to students who demonstrate financial need. These grants can be up to $2,000 per academic year. To be considered for this grant, students must file a Financial Aid Form (FAF).

PERKINS LOAN PROGRAM

(Formerly known as the National Direct Student Loan Program (NDSL).) These loans are available to students who demonstrate financial need. These loans bear a 5% interest rate and allow the student a nine month grace period before repayment begins. Students can borrow up to $3,000 for two years of undergraduate work. To be considered, students must file a Financial Aid Form (FAF).

COLLEGE WORK-STUDY PROGRAM

This financial aid is in the form of a part-time job on the college campus. It is available to students enrolled at least half-time and who demonstrate financial need. Preference is given to students who have the greatest financial need. Students can work up to 20 hours per week. To be considered, students must file a Financial Aid Form (FAF).
MONTICALM COMMUNITY COLLEGE
CREDIT ACCEPTANCE GUIDELINES

Students enrolled at Montcalm Community College for the first time either as first semester freshmen or as first or second year transfer students may wish to have coursework taken at other institutions evaluated for MCC credit. While not all coursework will be automatically accepted, in many instances it can be used to satisfy MCC course requirements or applied toward completion of the associate degree or certificate as elective credit.

A maximum of 36 credit hours may be transferred into Montcalm Community College. In order to receive an Associate Degree, a student must earn a minimum of 24 credit hours at Montcalm Community College. In the case of certificate programs, a minimum of fifty percent (50%) of the credits required for the certificate must be earned at MCC.

Moreover, students who intend to graduate from Montcalm Community College must be enrolled at the College during their final semester prior to receiving a degree or certificate.

Described below are guidelines for the acceptance of credit from other colleges or universities and for earning credit in non-traditional ways. In order for a student to qualify, he/she must make formal application to the College and be an enrolled student. More detailed information is available from the Admissions Office (or from the appropriate instructional administrator).

1. Transfer Credit from Accredited Institutions of Higher Learning

Courses taken at other colleges or universities in which a student has earned a "C" grade or better may be transferred to Montcalm Community College.

For more information on transfer credit please refer to the Student Handbook.

2. Credit for Correspondence Courses

Generally credit will not be granted by MCC for correspondence coursework. Exceptions are limited to United States Armed Forces Instruction courses and courses from regionally accredited institutions of higher learning.

Procedure: In order to qualify for correspondence credit a student must forward official transcripts to the Registrar's Office. The transcripts will be evaluated by the appropriate instructional administrator. A fee of $5.00 will be charged for each credit granted.
3. **Credit or Waiver by Examination**

MCC recognizes that many of its students come to college with a wealth of practical experience. Often that experience is equivalent to knowledge that would be gained through coursework. To take a course in that field may be needless repetition.

If a student wishes to receive a waiver or credit for a course in which he/she feels competent and for which an exam is offered he/she may opt for "credit or waiver by examination".

a. For credit: after enrolling in the course and successfully completing the exam the student will be awarded full credit for the course. An "S" grade will be awarded.

b. For waiver: upon successful completion of the exam, the requirement for taking that course will be waived. An examination fee of $5.00 per credit hour will be charged.

This option is available for a specific course only once and is not available for a course in which a student has already received a grade.

4. **C.L.E.P. (College Level Examination Program) Credit**

Students enrolled at MCC who have taken part in the College Level Examination Program (CLEP) and who have ranked in the 50th percentile or higher on a Subject Area test may request a waiver of specific course requirements or have course credit granted. If the waiver is applied, the student will not have to take the corresponding MCC course but will be required to take the equivalent credit hours in other MCC course work. For those students who wish to have specific course credits granted for the CLEP exams a fee of $5.00 per credit hour will be charged for each credit granted. A maximum of 14 credits may be earned in this fashion.

**Procedure:** To qualify for CLEP credit a student must supply to the Registrar's Office an official transcript of the test results. The appropriate instructional administrator will then evaluate the examination results for credit. CLEP credit will be noted on the transcript.

5. **Articulation Credits**

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

The conditions for receiving such credit are that the student:

1. has maintained a "B" average in high school course(s) under consideration; and

2. has received a written recommendation from the appropriate high school instructor.
Credit will be granted when the student has completed six (6) hours of MCC coursework with a "C" average in the discipline for which college credit is being granted. There will be no charge for the credit hours granted. To take advantage of this opportunity a student must enroll at MCC, take the appropriate courses no later than the beginning of the third year following high school graduation, and formally request credit. Finally, credit will be awarded through notation (no grade will be given) upon completion of the requirements. A maximum of nine (9) hours can be earned in this way.

Procedure: To qualify for articulation credits the student must submit the required forms to the Registrar's Office. When the coursework at MCC has been completed, he/she must then notify the appropriate instructional administrator.

6. Credit for Training Program

A. Armed Services Training

1. Students who have successfully completed Military Basic Training will be granted up to four credit hours of Physical Education credit provided they:

   a. formally request credit for Physical Education;

   b. submit to the Registrar "Form DD214" indicating the successful completion of "Basic Training"

B. Other Training Programs

2. Students who have successfully completed military coursework may receive transfer credit upon application according to the appropriate ACE guide. The MOS number is, by itself, not recognized for transfer credit. A fee of $5.00 will be charged for each credit granted.

Students who have successfully completed courses outlined in The National Guide (ACE) may receive transfer credit. A fee of $5.00 will be charged for each credit granted.

Procedure: In order to earn credit for training or military coursework, a student must forward official transcripts to the Registrar's Office. The transcripts will be evaluated for credit by the appropriate instructional administrator.
GRADING SYSTEM

Academic achievement will be appraised and recorded by means of the following system of letter grades:

<table>
<thead>
<tr>
<th>GRADE</th>
<th>HONOR POINT VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>E</td>
<td>Failure</td>
</tr>
<tr>
<td>WF</td>
<td>Withdraw while passing</td>
</tr>
<tr>
<td>WF</td>
<td>Withdraw while failing</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete (see note below)</td>
</tr>
<tr>
<td>V</td>
<td>Audit (see note below)</td>
</tr>
<tr>
<td>*S</td>
<td>Satisfactory completion</td>
</tr>
<tr>
<td>*U</td>
<td>Unsatisfactory</td>
</tr>
</tbody>
</table>

NOTE: Incomplete Grades - The "I" grade will be employed sparingly. It will be awarded in the case where a student has found it impossible to complete required coursework by the close of a semester for reasons beyond the student's control. It is an indication by the instructor of his belief that the student will receive a passing grade when the requirements have been fulfilled. Upon mutual written agreement (Incomplete Form) between student and instructor, the following procedure will be observed:

1. An incomplete (I) grade shall be entered on a student's record when a course is incomplete at the termination of the scheduled semester.

2. When the student has completed the course requirements, the instructor will notify the Registrar of the final grade. If no grade change has been received by the Registrar by the expected date of completion, the "I" will be changed to the final grade indicated on the incomplete contract for non-completion.

3. An "I" grade shall not be computed with other grades to establish a grade point average (GPA).

4. If a student receives an "I" grade in a course(s) while receiving veterans benefits, the coursework must be completed within one year or the student will be required to repay benefits received for that course.

NOTE: Audit - applies to the situation where a person pays tuition for a course but is not required to complete assignments or examinations. No credit is given for auditing a class.

"S" (satisfactory completion) and "U" (unsatisfactory completion) grades will be used only for the following courses: SD150, SD151, SD152, SD153, SD156, SD160, SD161, SD162, SD163, SD170, SD175, NUR117, and those courses for which competency exams are submitted.

NUR155 approved 3/15/88

NUR155 102 + 104
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 this agreement with the following Michigan four-year institutions:

Adrian College
Albion College
Alma College
Aquinas College
Baker College
Calvin College
Central Michigan University
Cleary College
Davenport College
Detroit College of Business
Eastern Michigan University
Ferris State University
General Motors Institute
Grand Valley State University
Hope College
Kalamazoo College
Lake Superior State University
Lawrence Institute of Technology
Madonna College
Michigan Christian College
Michigan State University
Michigan Technological University
Muskegon Business College
Nazareth College
Northern Michigan University
Northwood Institute
Oakland University
Olivet College
Sienna Heights College
Spring Arbor College
St. Mary's College
Western Michigan University

This agreement provides that a student who completes the Associate Degree in Arts and Sciences at MCC and who is accepted as a transfer student by one of these schools will have satisfied the basic general education requirements of that four-year college. The specific requirements of the MACRAO agreement are:

1. English Composition
2. Humanities
3. Social Sciences
4. Natural Sciences

<table>
<thead>
<tr>
<th>Requirement</th>
<th>MCC Hours</th>
<th>Four-Year Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English Composition</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>2. Humanities</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>3. Social Sciences</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>4. Natural Sciences</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

QUESTIONS: Which courses does MCC require? Which courses do four-year colleges recommend that a transfer student take at the community college level? Which electives are most useful in a given specialized field of study?

ANSWERS: The following page contains information about several concentrations of study (majors) which one might pursue in the completion of a baccalaureate degree at a four-year college. SEE AN MCC COUNSELOR for more details about this IMPORTANT PLANNING! The information provided here will change as four-year institutions change their degree requirements. You SHOULD CONTACT the admissions office at the four-year college or university which you expect to attend (as soon as possible after beginning at MCC).

This information cannot be considered as an agreement or contract between the individual student and Montcalm Community College or its staff.
MCC offers students a variety of degree programs from which to choose:

- Associate Degree in Arts and Sciences (MACRAO Transfer)
- Associate Degree in Applied Arts and Sciences
- Associate Degree in General Studies

MULTIPLE DEGREE PROCEDURE

A student may earn all three of MCC's degrees if he/she meets the requirements for those degrees. However, if a student has already received (or is receiving) an AAS or an AAAS degree, he/she may not apply for an Associate Degree in General Studies.

To receive an Applied Arts and Science degree a student must complete the degree requirements for that program. The completion of a certificate program coupled with general education courses is not sufficient to qualify for an AAAS degree.

Students may receive more than one AAAS degree if they fulfill the requirements specified by the department. However, a student may earn only one AAS degree within a department (e.g. Business Studies, including Business Data Processing, and Office Education). Students may complete more than one area of concentration within a department. Each area of concentration will be noted on the degree. While a second degree will not be granted, an area of concentration completed after the AAAS degree is issued will be noted on the transcript.

INFORMATION FOR APPLIED ARTS AND SCIENCES DEGREES

The certificate and degree programs listed on pages 23 through 41 are designed for students who wish to complete a specialized training education before entering the job market. Students planning to transfer to a four-year (senior) college or university should consult with a counselor to determine whether it is best to select courses other than those listed herein, in order to maximize transferability of credits to upper level colleges and universities.

This document was prepared on December 1, 1987 and is subject to change without prior notice and therefore cannot be considered as an agreement or contract between the individual student and Montcalm Community College or its staff.
DEGREE PROGRAMS

ASSOCIATE DEGREE IN ARTS AND SCIENCES

Art
Biological Sciences
Language Arts
Physical Education
Physical Sciences
Social Sciences

GUIDELINES FOR DEGREE IN ARTS AND SCIENCES (MACRAO TRANSFER)
THIS DEGREE OUTLINE MEETS MACRAO TRANSFER GUIDELINES

RECOMMENDED BUT NOT LIMITED TO: ART, BIOLOGICAL SCIENCES, LANGUAGE ARTS, PHYSICAL EDUCATION, PHYSICAL SCIENCES, SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>COURSE TITLES</th>
<th>COURSE NUMBERS</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA Freshman English I</td>
<td>LA100</td>
<td>3</td>
</tr>
<tr>
<td>Freshman English II*</td>
<td>LA101</td>
<td>3</td>
</tr>
<tr>
<td>HU Humanities I</td>
<td>HU200</td>
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<tr>
<td>NS Biological Science**</td>
<td>NS100</td>
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<tr>
<td>SS Intro to Social Science I</td>
<td>SS110</td>
<td>4</td>
</tr>
<tr>
<td>Intro to Social Science II***</td>
<td>SS111</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL REQUIRED HOURS 30
TOTAL ELECTIVE HOURS 30
TOTAL FOR DEGREE 60

* OR (having earned B+ or better in LA100) any other language arts courses except speech or drama
** OR (with sufficient science background) any other TWO science laboratory courses
*** OR any other TWO social science courses

ELECTIVE HOURS SHOULD REFLECT A MAJOR OR MINOR FIELD OF STUDY

SPECIFIC PROGRAM OUTLINES ARE FOUND ON PAGE 16 THROUGH 21
ARTS AND SCIENCES
ASSOCIATE DEGREE PROGRAM

This program in the liberal arts leads to an Associate Degree in Arts and Sciences with an emphasis in art. The objective of this program is to provide the background and skills necessary to continue study in the field of the visual arts. With the course load indicated below, a student can complete this 60 credit hour degree in two years.

FIRST YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>LA100 3</td>
</tr>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Intro to Art</td>
<td>HU120 2</td>
</tr>
<tr>
<td>Drawing I or Sketching</td>
<td>HU122 3</td>
</tr>
<tr>
<td>Painting I</td>
<td>HU125 3</td>
</tr>
<tr>
<td></td>
<td>Freshman English II*</td>
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<td></td>
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<td></td>
<td>Drawing II</td>
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<td>HU123 3</td>
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<td>Painting II</td>
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<td>Elective</td>
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SECOND YEAR

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<tbody>
<tr>
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<td>HU200 4</td>
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</tr>
<tr>
<td>Ceramics I</td>
<td>HU130 3</td>
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<tr>
<td>Painting III</td>
<td>HU227 3</td>
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<td>Art &quot;Teaching Courses&quot;</td>
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<td></td>
<td>Humanities II</td>
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<tr>
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<td>HU201 4</td>
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<td></td>
<td>NS101 4</td>
</tr>
<tr>
<td></td>
<td>Ceramics II</td>
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<td></td>
<td>HU131 3</td>
</tr>
<tr>
<td></td>
<td>Painting IV</td>
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<tr>
<td></td>
<td>HU228 4</td>
</tr>
<tr>
<td></td>
<td>Art &quot;Teaching Courses&quot;</td>
</tr>
<tr>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
</tr>
</tbody>
</table>

SUGGESTED ELECTIVES:

History
Philosophy
Literature

*See alternatives listed under requirements for the Associate Degree in Arts and Sciences
**BIOLICAL SCIENCES**
**ARTS AND SCIENCES**
**ASSOCIATE DEGREE PROGRAM**

This program in the liberal arts leads to an Associate Degree in Arts and Sciences with an emphasis in biology. The objective of this program is to provide the background and skills necessary to continue study in the field of biological science. With the course load indicated below, a student can complete this 60 credit hour degree in two years.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>LA100 3</td>
</tr>
<tr>
<td>College Chemistry I</td>
<td>NS220 4</td>
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<tr>
<td>Botany</td>
<td>NS110 4</td>
</tr>
<tr>
<td>Math Elective</td>
<td>NS115 4</td>
</tr>
<tr>
<td></td>
<td>LA101 3</td>
</tr>
<tr>
<td></td>
<td>College Chemistry II</td>
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<tr>
<td></td>
<td>Zoology</td>
</tr>
<tr>
<td></td>
<td>Math Elective</td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
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<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities I</td>
<td>HU200 4</td>
</tr>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Anatomy and Physiology I</td>
<td>NS103 4</td>
</tr>
<tr>
<td>Science Elective</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HU201 4</td>
</tr>
<tr>
<td></td>
<td>Intro to Social Science II*</td>
</tr>
<tr>
<td></td>
<td>Anatomy and Physiology II</td>
</tr>
<tr>
<td></td>
<td>Science Elective</td>
</tr>
</tbody>
</table>

**SCIENCE ELECTIVES**
- Microbiology        NS201
- Intro to Physics I & II NS230/231
- Earth Science       NS102
- Environmental Geography NS120

**MATH ELECTIVES**
- Intermediate Algebra MA104
- Trigonometry         MA102
- College Algebra      MA159
- Analytic Geometry    MA160

*See alternatives listed under requirements for the Associate Degree in Arts and Sciences*
This program in the liberal arts leads to an Associate Degree in Arts and Sciences with an emphasis in the language arts. The objective of this program is to provide the background and skills necessary to continue study in the field of language arts (literature, speech, communications). With the course load indicated below, a student can complete this 60 credit hour degree in two years.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>Freshman English II*</td>
</tr>
<tr>
<td>Intro to Social Science I</td>
<td>Intro to Social Science II*</td>
</tr>
<tr>
<td>American Thought &amp; Lit I</td>
<td>American Thought &amp; Lit II</td>
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<tr>
<td>Speech</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
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<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities I</td>
<td>Humanities II</td>
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<tr>
<td>English Literature I</td>
<td>English Literature II</td>
</tr>
<tr>
<td>Biological Science</td>
<td>Physical Science</td>
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**SECOND YEAR**

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<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. History to 1865</td>
<td>U.S. History since 1865</td>
</tr>
<tr>
<td>Michigan History</td>
<td>General Psychology</td>
</tr>
<tr>
<td>Economics</td>
<td>Intro to Philosophy</td>
</tr>
</tbody>
</table>

**LITERATURE ELECTIVES:**

| Short Story            | LA230                     |
| Children's Literature  | LA235                     |
| The Novel              | LA240                     |
| Drama as Literature    | LA260                     |
| Drama as a Performing Art | LA261                 |
| Poetry                 | LA270                     |

**OTHER ELECTIVES:**

| U.S. History to 1865   | SS250                     |
| U.S. History since 1865 | SS251                   |
| Michigan History       | SS255                     |
| General Psychology     | SS220                     |

*See alternatives listed under requirements for the Associate Degree in Arts and Sciences.*
PHYSICAL EDUCATION  
ARTS AND SCIENCES  
ASSOCIATE DEGREE PROGRAM

This is a program in liberal arts leading to an Associate Degree in Arts and Sciences with an emphasis in physical education. The objective of this program is to provide the background and skills necessary to continue study toward possible majors in secondary education with a minor in coaching; plus physical education and sport curriculum leading to employment in general recreation areas or therapeutic recreation; business; TV production; or health services management. With the course load indicated below, a student can complete this 60 hour degree in two years.

FIRST YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>Freshman English II*</td>
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<tr>
<td>SS110  4</td>
<td>LA100  3</td>
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<tr>
<td>Intro to Social Science I</td>
<td>Intro to Social Science II*</td>
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<td>SS111  4</td>
<td>SS111  4</td>
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<td>Biological Science</td>
<td>Speech</td>
</tr>
<tr>
<td>NS100  4</td>
<td>LA210  3</td>
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<tr>
<td>Intermediate Algebra</td>
<td>Sports Fundamentals</td>
</tr>
<tr>
<td>MA104  3</td>
<td>PE105  1</td>
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<tr>
<td>Personalized Body Cond.</td>
<td>Electives</td>
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<tr>
<td>or Intro to Physical Fit</td>
<td>3-4</td>
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<tr>
<td>PE103  1</td>
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<td>PE110  1</td>
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SECOND YEAR

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<thead>
<tr>
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<tbody>
<tr>
<td>College Chemistry</td>
<td>General Psychology</td>
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<td>NS203  4</td>
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<td>Humanities II</td>
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<td>HU201  4</td>
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<tr>
<td>Sports Officiating</td>
<td>Emergency Health Care</td>
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<tr>
<td>PE121  1</td>
<td>PE205  2</td>
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<td>Beginning Swimming</td>
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<td>PE130  1</td>
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<tr>
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It is a requirement that all students taking Physical Education courses submit evidence of physical fitness from their doctor to Montcalm Community College. This form will be placed in the student's file and kept on record for one year.

CMU's PED designated courses are subject to a limitation of six hours toward curriculum requirements for graduation.

SUGGESTED ELECTIVES

Introduction to Business  BA135
Principles of Marketing  BA233
Small Business Management BA235
Management  BA237
Intro to Data Process & Programming DP110
Introduction to BASIC  DP112

*See alternatives listed under requirements for the Associate Degree in Arts and Sciences.
PHYSICAL SCIENCES
ARTS AND SCIENCES
ASSOCIATE DEGREE PROGRAM

This program in the liberal arts leads to an Associate Degree in Arts and Sciences with an emphasis in the physical sciences. The objective of this program is to provide the background and skills necessary to continue study in the field of physical science (physics and chemistry). With the course load indicated below, a student can complete this 60 credit hour degree in two years.

### FIRST YEAR

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<tr>
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<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td>Freshman English I</td>
<td>LA100 3</td>
<td>Freshman English II*</td>
<td>LA101 3</td>
</tr>
<tr>
<td>College Chemistry I</td>
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<td>Intro to College Physics II</td>
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<tr>
<td>College Algebra</td>
<td>MA159 3</td>
<td>Analytic Geometry</td>
<td>MA160 3</td>
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### SECOND YEAR

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<td>SS110 4</td>
<td>Intro to Social Science II*</td>
<td>SS111 4</td>
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<tr>
<td>Calculus I</td>
<td>MA250 4</td>
<td>Calculus II</td>
<td>MA251 4</td>
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<td>Elective</td>
<td>3-4</td>
<td>Elective</td>
<td>3-4</td>
</tr>
</tbody>
</table>

SCIENCE ELECTIVES:

- Biological Science        | NS100       
- Earth Science             | NS102       
- Botany                    | NS110       
- Zoology                   | NS115       
- Environmental Geography   | NS120       
- Nature Study              | NS208       

*See alternatives listed under requirements for the Associate Degree in Arts and Sciences
SOCIAL SCIENCE
ARTS AND SCIENCES
ASSOCIATE DEGREE PROGRAM

This program in the liberal arts leads to an Associate Degree in Arts and Sciences with an emphasis in the social sciences. The objective of this program is to provide the background and skills necessary to continue study in the field of social science. With the course load indicated below, a student can complete this 60 credit hour degree in two years.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Freshman English II*</td>
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<tr>
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<td>LA101 3</td>
</tr>
<tr>
<td>U.S. History to 1865</td>
<td>Intro to Social Science II*</td>
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<td>Sociology</td>
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<td>Social Problems</td>
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**SECOND YEAR**

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<tbody>
<tr>
<td>Humanities I</td>
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<tr>
<td>General Psychology</td>
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</tr>
<tr>
<td>Cultural Anthropology</td>
<td>Child Psychology</td>
</tr>
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<td>Biological Science</td>
<td>SS220 3</td>
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<tr>
<td></td>
<td>Principles of Economics</td>
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<td></td>
<td>SS260 3</td>
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<tr>
<td></td>
<td>Physical Science</td>
</tr>
<tr>
<td></td>
<td>NS100 4</td>
</tr>
</tbody>
</table>

**SUGGESTED ELECTIVES**

| Michigan History                         | SS255                                  |
| Speech                                   | LA210                                  |
| American Literature                      | LA200/LA201                            |
| Math                                     | MA104                                  |
| Intro to Philosophy                      | HU220                                  |
| Foreign Language                         | FL                                     |

*See alternatives listed under requirements for the Associate Degree in Arts and Sciences*
DEGREE PROGRAMS

ASSOCIATE DEGREE IN APPLIED ARTS AND SCIENCES

- Automotive Technology
- Business Data Processing
- Business Studies
  - Accounting
  - Business Administration
  - Small Business Development/Management
- Cosmetology
- Criminal Justice
- Drafting Technology
- Electronics Technology
- Food Service Technology
- Nursing
- Office Education
  - Executive Secretary
  - Information Processing
  - Legal Secretary
  - Medical Secretary
- Paralegal Studies
- Radiological Technology (1+1 Agreement)

GUIDELINES FOR DEGREE IN APPLIED ARTS AND SCIENCES

<table>
<thead>
<tr>
<th>COURSE TITLES</th>
<th>COURSE NUMBER</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>LA Freshman English I</td>
<td>LA100</td>
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</tr>
<tr>
<td>Freshman English II*</td>
<td>LA101</td>
<td>3</td>
</tr>
<tr>
<td>SS Intro to Social Science I</td>
<td>SS110</td>
<td>4</td>
</tr>
<tr>
<td>Intro to Social Science II**</td>
<td>SS111</td>
<td>4 or 3</td>
</tr>
<tr>
<td>or Biological Science or Physical Science</td>
<td>NS100 or NS101</td>
<td></td>
</tr>
<tr>
<td>or Humanities I or Humanities II</td>
<td>HU200 or HU201</td>
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<tr>
<td>or any other Social Science course</td>
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</table>

LIBERAL ARTS REQUIRED HOURS 14 or 13
PROGRAM REQUIREMENTS (See specific program description)
TOTAL FOR DEGREE 60+

* OR (having earned B+ or better in LA100) any language arts courses except speech or drama

NOTE: Nursing students see page 42 for degree requirements

SPECIFIC PROGRAM OUTLINES ARE FOUND ON PAGE 23 THROUGH 41

22
AUTOMOTIVE TECHNOLOGY
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

This program is designed to give the technical student basic preparation in several automotive subjects of her or his choice. It also allows the student to select certain support courses which best fill individual needs for transfer or direct work applications. Instructor or counselor help is strongly recommended in making these selections. A graduate may seek higher degrees in business, engineering, marketing, or teaching and/or seek employment in automotive maintenance, manufacturing, field service, or sales positions. A minimum of 60 credit hours is required.

REQUIRED COURSES: (23 CREDITS)

Freshman English I LA100 3 Elementary Algebra MA100 3
*Freshman English II LA101 3 Concepts in Electricity EL100 3
Intro to Social Science I SS110 4 Basic Fluid Power IT253 3
*Intro to Social Science II SS111 4

AUTOMOTIVE REQUIREMENTS
(29 CREDITS—NO MORE THAN 31 WILL APPLY TO THE DEGREE)

Students may select from any of the AM courses available, except AM114, AM118, AM160, and AM164. Prerequisites must be satisfied. Instructor assistance is recommended.

ELECTIVES

Students must select from the groups listed below, provided all prerequisites are satisfied. Instructor or counselor assistance is recommended.

BA-Business Administration LA-Language Arts MA-Mathematics
DP-Data Processing IT-Industrial Technology MA-Mathematics
EL-Electricity/Electronics MA-Mathematics MA-Mathematics
FL-Foreign Language NS-Natural Science NS-Natural Science
HU-Humanities OI-Office Education

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences

A CERTIFICATE PROGRAM IN THE AUTOMOTIVE AREA IS ALSO AVAILABLE SEE PAGE 46
Professional auto service technicians are required to hold a state license with certifications appropriate to their work. There are eight certification areas; each has its own test. National ASE tests and certificates are also available in these same subjects, and are accepted by most states in place of their own. Many employers prefer to hire ASE licensed technicians. MCC offers coursework, both theoretical and practical, which prepares students to pass tests in either series.

Listed below are the eight state and national testing areas, together with the recommended MCC courses needed to fully prepare for each. A person with previous training or experience, or who has not completed high school, should check with an automotive instructor for individual recommendations.

**BRAKES**

Automotive Tools & Hardware AM104 1
Automotive Brakes & Servicing AM108 3
Hydraulics & Fluid Mechanics IT253 3

**FRONT-END SUSPENSION, STEERING**

Automotive Tools & Hardware AM104 1
Hydraulics & Fluid Mechanics IT153 3
Auto Steer. & Susp. Theory AM130 2
Auto Steer. & Susp. Lab AM131 2

**ENGINE REPAIR**

Automotive Tools & Hardware AM104 1
Engine Servicing I AM106 2
Engine Servicing Theory II AM124 2
Engine Servicing Lab II AM125 3

**ENGINE TUNE-UP AND PERFORMANCE**

Concepts in Electricity EL100 3
Auto Tools & Hardware AM104 1
Engine Servicing I AM106 2
Auto Engine Perf Theory I AM210 2
Auto Engine Perf Lab I AM211 2
Auto Engine Perf Theory II AM212 2
Auto Engine Perf Lab II AM213 3

**MANUAL TRANSMISSIONS, DIFFERENTIALS AND DRIVE TRAINS**

Manual Transmission Theory AM132 2
Manual Transmission Lab AM133 2

**HEATING, VENTILATING, AND AIR CONDITIONING**

Auto Heating & Air Con. Theory AM260 2
Auto Heating & Air Con. Lab AM261 2

**AUTOMATIC TRANSMISSIONS**

Hydraulics & Fluid Mechanics IT253 3
Automotive Tools & Hardware AM104 1
Automatic Transmission Theory AM230 2
Automatic Transmission Lab AM231 2

**ELECTRICAL SYSTEMS**

Concepts in Electricity EL100 3
Auto Tools & Hardware AM104 1
Auto Electrical Sys Theory I AM140 2
Auto Electrical Sys Lab I AM141 3
Auto Electrical Sys Theory II AM142 2
Auto Electrical Sys Lab II AM143 3

ADDITONAL AM COURSES ARE LISTED ON PAGES 65 THROUGH 69
BUSINESS STUDIES
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE
ACCOUNTING

This program leads to an Associate Degree in Applied Arts and Sciences with an emphasis in accounting. The objective of this program is to provide the background and skills necessary for an entrance job in the accounting field. Sixty credit hours are required to obtain a degree. With the course load indicated below, a student can complete the degree in two years.

FIRST YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>LA101 3</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>BA115 3</td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>BA135 3</td>
</tr>
<tr>
<td>Intro to Data Process</td>
<td>DP110 3</td>
</tr>
<tr>
<td>Intro to the IBM PC and Compatible PC's**</td>
<td>DP113 1</td>
</tr>
<tr>
<td></td>
<td>LA101 3</td>
</tr>
<tr>
<td></td>
<td>BA116 3</td>
</tr>
<tr>
<td></td>
<td>LA210 3</td>
</tr>
<tr>
<td></td>
<td>MA104 3</td>
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</table>

SECOND YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Cost Accounting I</td>
<td>BA215 3</td>
</tr>
<tr>
<td>Legal Environ of Business</td>
<td>BA200 3</td>
</tr>
<tr>
<td>Principles of Economics</td>
<td>SS215 3</td>
</tr>
<tr>
<td>Elective</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>Intro to Social Science II*</td>
</tr>
<tr>
<td></td>
<td>SS111 4</td>
</tr>
<tr>
<td></td>
<td>Cost Accounting II</td>
</tr>
<tr>
<td></td>
<td>BA216 3</td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
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<td></td>
<td>BA250 3</td>
</tr>
<tr>
<td></td>
<td>Management</td>
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<td></td>
<td>BA237 3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
</tr>
</tbody>
</table>

SUGGESTED ELECTIVES

- Microcomputers: Operating Systems and Applications: DP116
- Managerial Mathematics: MA116
- Keyboarding: SD145

*See alternatives listed under requirements for the Associates Degree in Applied Arts and Sciences
**Or taken concurrently with BA116
**BUSINESS STUDIES**  
**APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE**  
**BUSINESS ADMINISTRATION**

This program leads to an Associate Degree in Applied Arts and Sciences with an emphasis in business administration. The objective of this program is to provide the background skills necessary for an entrance job in the business field. Sixty credit hours are required and can be completed in two years with the course load indicated below.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>Freshman English II*</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>Human Relations</td>
</tr>
<tr>
<td>Intro to Data Processing</td>
<td>Speech</td>
</tr>
<tr>
<td>Intro to the IBM PC and</td>
<td>Elective</td>
</tr>
<tr>
<td>Compatible PC's**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>LA100</td>
<td>LA101</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BA115</td>
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<td>4</td>
<td></td>
</tr>
<tr>
<td>BA135</td>
<td>BA250</td>
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<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DP110</td>
<td>LA210</td>
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<td>3</td>
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<tr>
<td>DP113</td>
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**SECOND YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>Intro to Social Science II*</td>
</tr>
<tr>
<td>Legal Environ of Business</td>
<td>Advertising</td>
</tr>
<tr>
<td>Marketing</td>
<td>General Psychology</td>
</tr>
<tr>
<td>Management</td>
<td>Elective</td>
</tr>
<tr>
<td>Principles of Economics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SS110</td>
<td>SS111</td>
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<tr>
<td>4</td>
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<tr>
<td>BA200</td>
<td>BA248</td>
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<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BA233</td>
<td>SS220</td>
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<tr>
<td>3</td>
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</tr>
<tr>
<td>BA237</td>
<td></td>
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<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SS215</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**SUGGESTED ELECTIVES**

- Microcomputers: Operating Systems and Programming: DP116
- College Algebra: MA159
- Retailing: BA234
- Accounting for Small Business: BA105
- Entrepreneurship: BA136
- Small Business Management: BA235
- Customer Relations: BA251
- Financial Principles: BA252
- Purchasing: BA255
- Sales Management: BA255
- Credits and Collections: BA268

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences

**Or taken concurrently with BA116
The associate degree program is designed to prepare the student to start up a new business venture, determine vendors, price merchandise, use a microcomputer for accounting purposes, recruit and select employees and handle public relations. An Associate Degree in Applied Arts and Sciences will be awarded upon successful completion of at least 60 credit hours including the coursework described below.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>FIRST YEAR</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>LA100 3</td>
<td>Freshman English II*</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>BA115 4</td>
<td>Advertising</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>BA136 3</td>
<td>Speech</td>
</tr>
<tr>
<td>Intro to Data Processing</td>
<td>DP110 3</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>Marketing</td>
<td>BA233 3</td>
<td>Elective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECOND YEAR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER</td>
<td>SPRING SEMESTER</td>
</tr>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Legal Environ of Business</td>
<td>BA200 3</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>OE120 3</td>
</tr>
<tr>
<td>Principles of Economics</td>
<td>SS215 3</td>
</tr>
<tr>
<td>Microcomputers - Operating Systems and Applications</td>
<td>DP116 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUGGESTED ELECTIVES**

- Management: BA237
- COBOL Programming: DP220
- Managerial Accounting: BA116
- Accounting for Small Business: BA105
- Introduction to Business: BA135

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences.

A CERTIFICATE PROGRAM FOR SMALL BUSINESS DEVELOPMENT/MANAGEMENT IS ALSO AVAILABLE. SEE PAGE 47
BUSINESS STUDIES  
BUSINESS DATA PROCESSING  
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

This program leads to an Associate Degree in Applied Arts and Sciences, with a specialty in business data processing. The objective of this program is to provide the background and skills necessary for an entrance job in the business data processing field. It is designed with two tracks: one for students seeking careers with larger companies having centralized computer departments; the other for students seeking careers with smaller companies using microcomputers and commercially available software packages. Sixty credit hours required. The following outline indicates the order in which courses should be taken. With the course load indicated below, a student can complete the degree in two years.

### FIRST YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>LA100 3</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>BA115 4</td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>BA135 3</td>
</tr>
<tr>
<td>Intro to Data Process</td>
<td>DP110 3</td>
</tr>
<tr>
<td>Intro to IBM PC and</td>
<td></td>
</tr>
<tr>
<td>Compatible PC's****</td>
<td>DP113 1</td>
</tr>
<tr>
<td></td>
<td>Microcomputers: Operating Systems &amp; Applications*</td>
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<tr>
<td></td>
<td>DP116 3 Elective</td>
</tr>
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<td>**</td>
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</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Legal Environ of Business</td>
<td>BA200 3</td>
</tr>
<tr>
<td>Management</td>
<td>BA237 3</td>
</tr>
<tr>
<td>Systems Concepts/Design</td>
<td>DP240 3</td>
</tr>
<tr>
<td>Cobol Programming*</td>
<td>DP220 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Microcomputer Spreadsheets**</td>
<td>DP230 3</td>
</tr>
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</tr>
</tbody>
</table>

**SUGGESTED ELECTIVES:**

- Beginning Typing: OE100
- or Keyboarding: SD145
- Elementary Algebra: MA100

**NOTE:** STUDENTS PLANNING TO TRANSFER TO FOUR-YEAR COLLEGES ARE STRONGLY ADVISED TO CONSULT A COUNSELOR DURING THEIR FIRST SEMESTER

*For students pursuing a programming career in high-level languages.  
**For students pursuing a career in microcomputer applications.  
***See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences  
****Or taken concurrently with BA116
This associate degree program is designed to prepare the successful graduate for a career in corrections with increased opportunities. It includes the 15 credit hours needed for certification (see important information above), plus normal degree requirements and other career related courses. It also is designed to provide maximum transferability to those four year colleges and universities which offer a Bachelor's Degree in Criminal Justice or related fields. The following outline indicates the order in which courses should be taken. With the course load shown below, a student can complete the degree in two years.

### FIRST YEAR

<table>
<thead>
<tr>
<th><strong>FALL SEMESTER</strong></th>
<th><strong>SPRING SEMESTER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Corrections</td>
<td>Corrections Institutions/ Facilities</td>
</tr>
<tr>
<td>Freshman English I</td>
<td>CJ120 3*</td>
</tr>
<tr>
<td>Intro to Social Science I</td>
<td>Freshman English II*</td>
</tr>
<tr>
<td>Intro to Criminal Justice</td>
<td>LA101 3*</td>
</tr>
<tr>
<td>Elective</td>
<td>Intro to Social Science II*</td>
</tr>
<tr>
<td>3-4</td>
<td>SS111 4*</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th><strong>FALL SEMESTER</strong></th>
<th><strong>SPRING SEMESTER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities I</td>
<td>Humanities II</td>
</tr>
<tr>
<td>Speech</td>
<td>American Criminal Law</td>
</tr>
<tr>
<td>Legal Issues in Corrections</td>
<td>Client Growth &amp; Development</td>
</tr>
<tr>
<td>Emergency Health Care</td>
<td>Criminal Justice Practicum+</td>
</tr>
<tr>
<td>Client Relations in Corrections</td>
<td>Report Writing for</td>
</tr>
<tr>
<td>Stress Management for Correctional Officers**</td>
<td>Line Officers</td>
</tr>
</tbody>
</table>

- Additional 290's will be added for police, fire, public safety, etc., as need arises
- See alternatives listed under the requirements of the Associate Degree in Applied Arts and Sciences
- Pending Curriculum Committee Approval

A CERTIFICATE PROGRAM IN CRIMINAL JUSTICE IS ALSO AVAILABLE SEE PAGE 50
DRAFTING TECHNOLOGY  
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

The sequence of courses shown below allows students to earn an associate degree in applied arts and sciences in two years of school as a full-time student. Students who wish to attend school part-time need not necessarily adhere to this exact sequence. Please check with your counselor. Sixty credit hours required.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metallurgy &amp; Heat Treatment IT130</td>
<td>2</td>
</tr>
<tr>
<td>Basic Machine Operation IT220</td>
<td>3</td>
</tr>
<tr>
<td>Freshman English I LA100</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Algebra MA104</td>
<td>3</td>
</tr>
<tr>
<td>Technical Drafting I TD100</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HU121 2</td>
</tr>
<tr>
<td></td>
<td>Manufacturing Processes IT260 2</td>
</tr>
<tr>
<td></td>
<td>Freshman English II* LA101 3</td>
</tr>
<tr>
<td></td>
<td>Trigonometry MA102 3</td>
</tr>
<tr>
<td></td>
<td>Descriptive Geometry TD110 3</td>
</tr>
<tr>
<td></td>
<td>Technical Drafting II TD130 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concepts in Electricity EL100</td>
<td>3</td>
</tr>
<tr>
<td>Product Design TD215</td>
<td>3</td>
</tr>
<tr>
<td>Intro to Social Science I SS110</td>
<td>4</td>
</tr>
<tr>
<td>Jig &amp; Fixture Design TD230</td>
<td>3</td>
</tr>
<tr>
<td>Intro to Data Processing DP110</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer Relations BA251 2</td>
</tr>
<tr>
<td></td>
<td>Basic Fluid Power IT253 3</td>
</tr>
<tr>
<td></td>
<td>Intro to Social Science II* SS111 4</td>
</tr>
<tr>
<td></td>
<td>Tool &amp; Die Design I** TD135 2</td>
</tr>
<tr>
<td></td>
<td>Computer Aided Drafting I TD250 3</td>
</tr>
</tbody>
</table>

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences

**May substitute Plastic Mold Design I (TD140)

A CERTIFICATE PROGRAM IN DRAFTING IS ALSO AVAILABLE SEE PAGE 51
ELECTRONICS TECHNOLOGY
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

This program prepares the student for diagnosis and repair of complex electronic devices. It may be transferable as a package to a four year university. Through proper selection of electives, emphasis may be placed upon communications, computers, or industrial electronics. A counselor or instructor can help select courses for these areas. Sixty credit hours required for the degree; at least 30 must be EL courses. The following outline indicates the order in which courses should be taken. With the course load shown below, a student can complete the degree in two years.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>Freshman English II*</td>
</tr>
<tr>
<td>Intermediate Algebra</td>
<td>MA104 3</td>
</tr>
<tr>
<td>Concepts of Electricity</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>Electronic Circuit Analysis</td>
<td>EL100 3</td>
</tr>
<tr>
<td>Intro to Data Processing</td>
<td>Electronic Circuits</td>
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<tr>
<td></td>
<td>EL110 3</td>
</tr>
<tr>
<td></td>
<td>Electronic Devices</td>
</tr>
<tr>
<td></td>
<td>EL120 3</td>
</tr>
<tr>
<td></td>
<td>Elective (EL)</td>
</tr>
<tr>
<td></td>
<td>2-3</td>
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</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>Intro to Social Science II*</td>
</tr>
<tr>
<td>Intro to College Physics I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Microprocessors I</td>
<td>Intro to College Physics II</td>
</tr>
<tr>
<td>Microprocessors II</td>
<td>NS111 3</td>
</tr>
<tr>
<td>Digital Electronics</td>
<td>Customer Relations</td>
</tr>
<tr>
<td>Elective (EL)</td>
<td>EL141 3</td>
</tr>
<tr>
<td></td>
<td>BA251 2</td>
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<tr>
<td></td>
<td>Electronic Test Equipment</td>
</tr>
<tr>
<td></td>
<td>EL241 1</td>
</tr>
<tr>
<td></td>
<td>EL160 3</td>
</tr>
<tr>
<td></td>
<td>Elective (EL)</td>
</tr>
<tr>
<td></td>
<td>2-3</td>
</tr>
</tbody>
</table>

**PROGRAM REVISIONS ARE ANTICIPATED – PLEASE CHECK**

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences

A CERTIFICATE PROGRAM IN ELECTRONICS TECHNOLOGY IS ALSO AVAILABLE SEE PAGE 52
FOOD SERVICE TECHNOLOGY
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE
(FULL-TIME PROGRAM ONLY AVAILABLE TO COPE STUDENTS)

The Food Service Technology program is designed to provide students with the skills and technical knowledge necessary to prepare for entry level employment in the food service/restaurant industry. Students completing this program will have basic skills in food preparation, nutrition and menu planning, hotel and restaurant management, and small business operation as it relates to the food industry. In addition, they will fulfill all the requirements for an Applied Arts and Sciences Degree. The following outline indicates the order in which courses should be taken. With the course load indicated below, a student can complete the degree in two years.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>Freshman English II*</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>LA100 3</td>
</tr>
<tr>
<td>Intro to Food Services</td>
<td>OE120 3</td>
</tr>
<tr>
<td>Food Service Safety and</td>
<td>FST100 3</td>
</tr>
<tr>
<td>Sanitation</td>
<td>Food Production Skills -</td>
</tr>
<tr>
<td>Food Production Skills -</td>
<td>Entree</td>
</tr>
<tr>
<td>General</td>
<td>BA135 3</td>
</tr>
<tr>
<td>FST110 4</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>Intro to Social Science II*</td>
</tr>
<tr>
<td>Equipment Design; Layout and</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Selection</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>Food Service Management</td>
<td>BA235 3</td>
</tr>
<tr>
<td>Food Production Skills -</td>
<td>Humanities I</td>
</tr>
<tr>
<td>Bakery</td>
<td>HU200 4</td>
</tr>
<tr>
<td>FST201 3</td>
<td>Food Production Skills -</td>
</tr>
<tr>
<td></td>
<td>Catering</td>
</tr>
<tr>
<td>FST210 4</td>
<td>FST220 4</td>
</tr>
<tr>
<td></td>
<td>Food Purchasing</td>
</tr>
<tr>
<td></td>
<td>FST230 3</td>
</tr>
</tbody>
</table>

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences

A CERTIFICATE PROGRAM IN FOOD SERVICE TECHNOLOGY IS ALSO AVAILABLE SEE PAGE 53

32
INDUSTRIAL TECHNOLOGY
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

The graduate of the industrial technology program will have a well-rounded background, which prepares him/her for work in manufacturing and process industries as planners, buyers, or as technicians. In addition, transfer to a four-year Bachelor's Degree Program is possible. The training offers many hours of practical, hands-on experience to complement the theory. A minimum of 60 credit hours is required. The following outline indicates the order in which courses should be taken. With the course load shown below, a student can complete the degree program in two years.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Machine Operation</td>
<td>IT220 3</td>
</tr>
<tr>
<td>Freshman English I</td>
<td>LA100 3</td>
</tr>
<tr>
<td>Elementary Algebra</td>
<td>MA100 3</td>
</tr>
<tr>
<td>Technical Drafting I</td>
<td>TD100 3</td>
</tr>
<tr>
<td>Intro to Data Processing</td>
<td>DP110 3</td>
</tr>
<tr>
<td>Sketching</td>
<td>HU121 2</td>
</tr>
<tr>
<td>Basic Fluid Power</td>
<td>IT253 3</td>
</tr>
<tr>
<td>Manufacturing Processes</td>
<td>IT260 2</td>
</tr>
<tr>
<td>Freshman English II*</td>
<td>LA101 3</td>
</tr>
<tr>
<td>Intermediate Algebra</td>
<td>MA104 3</td>
</tr>
<tr>
<td>Layout &amp; Precision Measure</td>
<td>TD106 2</td>
</tr>
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</table>

SECOND YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concepts in Electricity</td>
<td>EL100 3</td>
</tr>
<tr>
<td>Basic CNC Operation</td>
<td>IT102 2</td>
</tr>
<tr>
<td>Metallurgy &amp; Heat Treatment</td>
<td>IT130 2</td>
</tr>
<tr>
<td>Intro to College Physics I</td>
<td>NS111 3</td>
</tr>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Industrial Quality Control</td>
<td>IT270 2</td>
</tr>
<tr>
<td>Customer Relations</td>
<td>BA251 2</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>MA102 3</td>
</tr>
<tr>
<td>Intro to College Physics II</td>
<td>NS112 3</td>
</tr>
<tr>
<td>Intro to Social Science II*</td>
<td>SS111 4</td>
</tr>
<tr>
<td>Welding Elective</td>
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</tr>
</tbody>
</table>

STUDENTS ARE URGED TO LEARN Typing IN HIGH SCHOOL OR EARLY IN THIS PROGRAM

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences
NURSING
LEVEL I & II
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

A student with no prior nursing education may complete Level I & II and be awarded an Applied Arts & Sciences Degree. The student may then become eligible to write the National Council Licensing Examination (NCLEX-RN) and practice as a Registered Nurse (RN). In addition to Level I admission criteria (see previous page), the student must also have completed a general chemistry and algebra course with "C" or better grades, not more than 10 years old (completed in one year if high school or one semester if college work and the chemistry course must include a lab) and NS103, NS203, SS220, SS221, prior to being admitted to nursing. Progression into Level II, after successfully completing all Level I courses, requires a satisfactory score on the Applied Weights and Measures Test and recommendations by the faculty members. It is further RECOMMENDED that a student wishing to become an RN complete LA100, LA101, PE110, and SS240 or SS110 prior to beginning the nursing curriculum.

The following curriculum guide is RECOMMENDED:

<table>
<thead>
<tr>
<th>FALL SEMESTER - 16 WEEKS</th>
<th>SPRING SEMESTER - 16 WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy &amp; Physiology I</td>
<td>Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>NS103 4</td>
<td>NS203 4</td>
</tr>
<tr>
<td>Intro to Physical Fitness</td>
<td>Freshman English II</td>
</tr>
<tr>
<td>PE110 1</td>
<td>LA101 3</td>
</tr>
<tr>
<td>Freshman English I</td>
<td>Child Psychology</td>
</tr>
<tr>
<td>LA100 3</td>
<td>SS221 3</td>
</tr>
<tr>
<td>General Psychology</td>
<td>Social Science I or</td>
</tr>
<tr>
<td>SS220 3</td>
<td>SS110 4</td>
</tr>
<tr>
<td></td>
<td>Political Science</td>
</tr>
<tr>
<td></td>
<td>SS240 3</td>
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LEVEL I & II

<table>
<thead>
<tr>
<th>FALL SEMESTER - 16 WEEKS</th>
<th>SPRING SEMESTER - 16 WEEKS</th>
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</thead>
<tbody>
<tr>
<td>Basic Nursing Skills I</td>
<td>Basic Nursing Skills II</td>
</tr>
<tr>
<td>NUR102 7</td>
<td>NUR104 12</td>
</tr>
<tr>
<td>Food in Health &amp; Disease</td>
<td>Maternal-Child Nursing I</td>
</tr>
<tr>
<td>NUR110 2</td>
<td>NUR145 3</td>
</tr>
<tr>
<td>Concepts of Interpersona</td>
<td>Medical-Surgical II</td>
</tr>
<tr>
<td></td>
<td>NUR151 3</td>
</tr>
<tr>
<td>Relationships</td>
<td>Pharmacology II</td>
</tr>
<tr>
<td>NUR120 2</td>
<td>NUR162 1</td>
</tr>
<tr>
<td>Medical-Surgical I</td>
<td></td>
</tr>
<tr>
<td>NUR150 2</td>
<td></td>
</tr>
<tr>
<td>Pharmacology I</td>
<td></td>
</tr>
<tr>
<td>NUR161 1</td>
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SUMMER SEMESTER - 8 WEEKS

| Clinical Practicum | NUR117 6 |
| Nursing Seminar    | NUR125 1 |
| Medical-Surgical III | NUR152 1 |
| Role Transition    | NUR200 2 |

FALL SEMESTER - 16 WEEKS

<table>
<thead>
<tr>
<th>Spring Semester - 16 WEEKS</th>
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</thead>
<tbody>
<tr>
<td>Maternal-Child Nursing II NUR245 6</td>
</tr>
<tr>
<td>Community Mental Health NUR255 6</td>
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</table>

SUMMER SEMESTER - 4 WEEKS

| Leadership Role in Nursing | NUR225 3 |

A CERTIFICATE PROGRAM IN LICENSED PRACTICAL NURSING IS ALSO AVAILABLE SEE PAGE 55
NURSING
LEVEL II
ADVANCED STANDING LPN
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

A student with prior nursing education and/or a Licensed Practical Nurse (LPN may complete Level II and become eligible to write the National Council Licensure Examination (NCLEX-RN) and practice as a Registered Nurse (RN). To be placed on the waiting list the following admission criteria must be met; official transcripts of all previous nursing courses, scores of 18 on the ASSET Reading test and 19 on the ASSET Numerical Skills test, satisfactory scores on the Applied Weights and Measures test, a chemistry course (with a "C" or better grade and not more than 10 years old which included a lab), a pharmacology course in the Practical Nurse Program, six months current acute care work experience. Before beginning Level II nursing courses, NS103, NS203, SS220, and NUR200 must be completed. It is further RECOMMENDED that a student wishing to become an RN complete LA100, LA101, PE110, and SS240 or SS110 prior to beginning Level II Nursing Curriculum. Admission into Level II is not guaranteed immediately upon meeting admission criteria, but is dependent upon available space. A student is placed on the waiting list when admission criteria are met.

The following curriculum guide is RECOMMENDED:

<table>
<thead>
<tr>
<th>FALL SEMESTER - 16 WEEKS</th>
<th>SPRING SEMESTER - 16 WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy &amp; Physiology I</td>
<td>Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>Intro to Physical Fitness</td>
<td>Freshman English II</td>
</tr>
<tr>
<td>Freshman English I</td>
<td>Social Science I or</td>
</tr>
<tr>
<td>General Psychology</td>
<td>Political Science</td>
</tr>
<tr>
<td>NS103 4</td>
<td>NS203: 4</td>
</tr>
<tr>
<td>PE110 1</td>
<td>LA101: 3</td>
</tr>
<tr>
<td>LA100 3</td>
<td>SS110: 4</td>
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<tr>
<td>SS220 3</td>
<td>SS240: 3</td>
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<table>
<thead>
<tr>
<th>SUMMER SEMESTER - 8 WEEKS</th>
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</thead>
<tbody>
<tr>
<td>Role Transition</td>
</tr>
<tr>
<td>NUR200: 2</td>
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</table>

<table>
<thead>
<tr>
<th>FALL SEMESTER - 16 WEEKS</th>
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<tbody>
<tr>
<td>Advanced Medical -</td>
<td>Maternal-Child Nursing II</td>
</tr>
<tr>
<td>Surgical Nursing</td>
<td>Community Mental Health</td>
</tr>
<tr>
<td>Microbiology</td>
<td>NUR245: 6</td>
</tr>
<tr>
<td>NUR251 10</td>
<td>NUR255: 6</td>
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<tr>
<td>NUR201 4</td>
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<table>
<thead>
<tr>
<th>SUMMER SEMESTER - 4 WEEKS</th>
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<tbody>
<tr>
<td>Leadership Role in Nursing</td>
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<tr>
<td>NUR225: 3</td>
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</table>

A CERTIFICATE PROGRAM IN LICENSED PRACTICAL NURSING IS ALSO AVAILABLE SEE PAGE 55

35
The graduate of the executive secretarial science curriculum will have a knowledge of business technology and skill in dictation and accurate transcription of business letters and reports. The graduate is prepared to be employed as a stenographer or a secretary. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The secretary, in addition to taking dictation, is responsible for meeting office callers, screening telephone calls, and assisting the executive. An Associate Degree in Applied Arts and Sciences will be awarded upon successful completion of at least 60 credit hours, including the coursework below. By following this sequence, the program can be completed in two years.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>LA100</td>
</tr>
<tr>
<td>Intermediate Typing</td>
<td>OE101 3</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>OE120 3</td>
</tr>
<tr>
<td>Business Communications I</td>
<td>OE129 3</td>
</tr>
<tr>
<td>Elective</td>
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</tr>
<tr>
<td></td>
<td>LA101 3</td>
</tr>
<tr>
<td></td>
<td>Business Communications II</td>
</tr>
<tr>
<td></td>
<td>OE130 3</td>
</tr>
<tr>
<td></td>
<td>Advanced Typing</td>
</tr>
<tr>
<td></td>
<td>OE202 3</td>
</tr>
<tr>
<td></td>
<td>Business Calculators</td>
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<td></td>
<td>OE240 3</td>
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<tr>
<td></td>
<td>Information Processing I</td>
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<tr>
<td></td>
<td>OE225 4</td>
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</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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</thead>
<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
</tr>
<tr>
<td>Shorthand I</td>
<td>OE103 4</td>
</tr>
<tr>
<td>Accctg for Small Business</td>
<td>BA105 3</td>
</tr>
<tr>
<td>Voice Transcription</td>
<td>OE220 3</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intro to Social Science II</td>
</tr>
<tr>
<td></td>
<td>SS111 4</td>
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<tr>
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<td></td>
<td>OE175 3</td>
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<tr>
<td></td>
<td>Shorthand II</td>
</tr>
<tr>
<td></td>
<td>OE104 4</td>
</tr>
<tr>
<td></td>
<td>Office Procedures</td>
</tr>
<tr>
<td></td>
<td>OE230 3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td>OE203 3</td>
</tr>
</tbody>
</table>

**SUGGESTED ELECTIVES**

- Introduction to Business      BA135
- Human Relations               BA250
- Intro to Data Processing      DP110
- Information Processing II     OE226
- Information Processing III    OE227
- Field Experience              OE290
- Advanced Shorthand            OE203

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences
OFFICE EDUCATION
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE
INFORMATION PROCESSING

The graduate of this associate degree program will have a knowledge of business concepts and skill in the use of several types of electronic office equipment. The student is prepared to be employed as an information processing secretary and/or an administrative secretary. Advancement may also be attained for those students who wish to further specialize in related fields. An Associate Degree in Applied Arts and Sciences will be awarded upon successful completion of at least 60 credit hours including the coursework below. By following this sequence, the program can be completed in two years.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FALL SEMESTER</strong></td>
<td><strong>SPRING SEMESTER</strong></td>
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<tr>
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<td>Business Communications I</td>
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<table>
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<tr>
<th>SECOND YEAR</th>
<th>SPRING SEMESTER</th>
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</thead>
<tbody>
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<td><strong>FALL SEMESTER</strong></td>
<td><strong>SPRING SEMESTER</strong></td>
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<td>Intro to Data Processing</td>
<td>DF110</td>
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<tr>
<td>Information Processing II</td>
<td>OE226</td>
</tr>
<tr>
<td>Voice Transcription</td>
<td>OE220</td>
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SUGGESTED ELECTIVES
- Introduction to Business BA135
- Human Relations BA250
- Field Experience OE290

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences

A CERTIFICATE PROGRAM IN INFORMATION PROCESSING IS ALSO AVAILABLE SEE PAGE 58
OFFICE EDUCATION
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE
LEGAL SECRETARY

This program leads to an Associate Degree in Applied Arts and Sciences. The Legal Secretarial program is designed to prepare for employment and/or advancement. Students who wish to specialize in legal shorthand and transcription and legal office procedures. An Associate Degree in Applied Arts and Sciences will be awarded upon successful completion of at least 60 credit hours including the coursework below.

### FIRST YEAR

<table>
<thead>
<tr>
<th><strong>FALL SEMESTER</strong></th>
<th><strong>SPRING SEMESTER</strong></th>
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</thead>
<tbody>
<tr>
<td>Freshman English I</td>
<td>LA100 3</td>
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<tr>
<td>Intermediate Typing</td>
<td>OE101 3</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>OE120 3</td>
</tr>
<tr>
<td>Business Communications I</td>
<td>OE129 3</td>
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<tr>
<td>Elective</td>
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<tr>
<td>Freshman English II*</td>
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<tr>
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<td>Information Processing I</td>
<td>OE225 4</td>
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### SECOND YEAR

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<tbody>
<tr>
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<td>Legal Environ of Business</td>
<td>BA200 3</td>
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<tr>
<td>Shorthand I</td>
<td>OE103 4</td>
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<tr>
<td>Voice Transcription</td>
<td>OE220 3</td>
</tr>
<tr>
<td>Legal Term &amp; Transcription</td>
<td>OE205 3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Intro to Social Science II*</td>
<td>SS111 4</td>
</tr>
<tr>
<td>Shorthand II</td>
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<tr>
<td>Legal Office Procedures</td>
<td>OE206 3</td>
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<tr>
<td>Office Procedures</td>
<td>OE230 3</td>
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<td>Elective</td>
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</table>

**SUGGESTED ELECTIVES**
- Introduction to Business BA135
- Human Relations BA250
- Intro to Data Processing DP110
- Information Processing II OE226
- Information Processing III OE227
- Business Communications II OE130
- Field Experience OE290
- Shorthand III OE230

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences

A CERTIFICATE PROGRAM FOR LEGAL OFFICE ASSISTANT IS ALSO AVAILABLE SEE PAGE 57
This program leads to a degree in Applied Arts and Sciences. The Medical Secretarial program is designed to prepare the student for employment and/or advancement in a physician's office, hospital, medical supply house, local, state, or federal health agency, voluntary health agency, medical college, health insurance firm, or related area. An Associate Degree in Applied Arts and Sciences will be awarded upon successful completion of at least 60 credit hours including the coursework below. By following this sequence, the program can be completed in two years.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>FIRST YEAR</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td>Freshman English I</td>
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<td>Freshman English II*</td>
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<td>OE101 3</td>
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<td>Business Mathematics</td>
<td>OE120 3</td>
<td>Advanced Typing</td>
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<td>Business Communications I</td>
<td>OE129 3</td>
<td>Information Processing I</td>
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<td>Business Calculators</td>
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<table>
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<th>FALL SEMESTER</th>
<th>SECOND YEAR</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>SS110 4</td>
<td>Intro to Social Science II*</td>
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<td>Shorthand I</td>
<td>OE104 4</td>
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<td>Medical Terminology</td>
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<td>Office Procedures</td>
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</table>

SUGGESTED ELECTIVES
- Introduction to Business | BA135
- Human Relations | BA250
- Intro to Data Processing | DP110
- Information Processing II | OE226
- Information Processing III | OE227
- Business Communications II | OE130
- Field Experience | OE290
- Advanced Shorthand | OE203

*See alternatives listed under requirements for the Associate Degree in Applied arts and Sciences

A CERTIFICATE PROGRAM FOR MEDICAL OFFICE ASSISTANT IS ALSO AVAILABLE SEE PAGE 58
PARALEgal STUDIES
APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE

The paralegal studies curriculum is designed to prepare the student for a career as a Paralegal Assistant. The included course work will expose the student to the types of skills and knowledge needed to compete for jobs in this field. In addition, students completing this course work will fulfill all the requirements for the Applied Arts and Sciences Degree. A minimum of 60 credits is required for this degree.

FIRST YEAR

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
<th>AND NUMBER</th>
<th>HOURS</th>
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<td>LA101 Freshman English II*</td>
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<td>SS110 Social Science I</td>
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<td>SS111 Social Science II*</td>
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<tr>
<td>PL100 Intro to Paralegal Studies</td>
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<th>COURSE NAME</th>
<th>CREDIT</th>
<th>AND NUMBER</th>
<th>HOURS</th>
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<td>BA115 Financial Accounting</td>
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</tr>
<tr>
<td>DP110 Intro to Data Processing and Programming</td>
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SECOND YEAR

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
<th>AND NUMBER</th>
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<tbody>
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<td>SS220 General Psychology</td>
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<td>LA210 Speech</td>
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<td>BA200 Business Law</td>
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<tr>
<td>PL200 Estates, Wills, and Trusts**</td>
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<td>PL215 Litigation I</td>
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<td>PL216 Litigation II</td>
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<td>PL210 Tax Law**</td>
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</tbody>
</table>

It is recommended that electives be taken from the following areas: Business, Data Processing, Humanities, Language Arts, or Social Science

*See alternatives listed under requirements for the Associate Degree in Applied Arts and Sciences
**Under development
### RADIOLOGIC TECHNOLOGY

**APPLIED ARTS AND SCIENCES ASSOCIATE DEGREE**

A "One-Plus-One" approach, the radiologic technology curriculum is offered in cooperation with Mid-Michigan Community College. This program is designed for students who live in the Montcalm Community College service area and are interested in pursuit of this highly technical program. All radiological technology courses (22 credit hours) are taught at Mid-Michigan Community College. The clinical course (26 credit hours) will be arranged locally. The liberal arts, science, and prerequisite courses (31 credit hours) are available at Montcalm.

#### FIRST YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER (MONTCALM)</th>
<th>SPRING SEMESTER (MONTCALM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Terminology**</td>
<td>Anatomy and Physiology II</td>
</tr>
<tr>
<td></td>
<td>NS203 4</td>
</tr>
<tr>
<td>Anatomy and Physiology I**</td>
<td>Political Science</td>
</tr>
<tr>
<td>NS103 4</td>
<td>SS240 3</td>
</tr>
<tr>
<td>Introductory Chemistry**</td>
<td>Intro to Data Processing</td>
</tr>
<tr>
<td>NS105 4</td>
<td>DP110 3</td>
</tr>
<tr>
<td>General Psychology</td>
<td>Speech</td>
</tr>
<tr>
<td>SS220 3</td>
<td>LA210 3</td>
</tr>
<tr>
<td>Freshman English I</td>
<td>Elective</td>
</tr>
<tr>
<td>LA100 3</td>
<td></td>
</tr>
<tr>
<td>Physical Education Elective</td>
<td></td>
</tr>
</tbody>
</table>

**Prerequisite Courses**

All documents, testing, and prerequisites should be completed and submitted to Mid-Michigan Community College by May 1st to be eligible to begin Radiologic Technology classes by the next fall at Mid-Michigan Community College.

#### SECOND YEAR

<table>
<thead>
<tr>
<th>FALL SEMESTER (MID-MICHIGAN)</th>
<th>SPRING SEMESTER (MID-MICHIGAN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Radiologic Tech</td>
<td>Radiation Physics</td>
</tr>
<tr>
<td>RAD100 3</td>
<td>RAD110 3</td>
</tr>
<tr>
<td>Radiologic Positioning I</td>
<td>Principles of Radiation</td>
</tr>
<tr>
<td>RAD105 2</td>
<td>Exposure</td>
</tr>
<tr>
<td></td>
<td>Radiologic Positioning II</td>
</tr>
<tr>
<td></td>
<td>RAD125 2</td>
</tr>
</tbody>
</table>

#### SUMMER SEMESTER (MID-MICHIGAN)

| Radiologic Positioning III  | RAD175 2                       |

#### THIRD YEAR

**THIS BEGINS THE 50-WEEK CLINICAL COMPONENT TO BE ARRANGED LOCALLY**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Education I</td>
<td>RAD200 10</td>
</tr>
<tr>
<td>Radiologic Techniques I</td>
<td>RAD215 3</td>
</tr>
</tbody>
</table>

#### SUMMER SEMESTER

| Clinical Education III | RAD225 6       |
| Radiographic Quality Assurance | RAD230 1 |
### Degree Information

**Associate Degree in General Studies**

<table>
<thead>
<tr>
<th>Course Titles</th>
<th>Course Numbers</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Social Science I</td>
<td>SS110</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Science</td>
<td>SS240</td>
<td>3</td>
</tr>
</tbody>
</table>

Other academic courses (must include courses from at least three of the academic areas: humanities, language arts, mathematics, natural science, and social science).

| Total Required Hours            | 15             |
| Total Elective Hours            | 45             |
| Total for Degree                | 60+            |
CERTIFICATE INFORMATION

MCC CERTIFICATE PROGRAM GUIDELINES

Apprentice Training
Automotive Servicing
Cosmetology
Criminal Justice
Drafting
Electrical Technology
Food Service Technology
Machine Tool Operation
Nursing
Office Education
  Clerk-Typist
  Legal Office Assistant
  Medical Office Assistant
  Stenographer
  Word Processing
Small Business Development/Management
Welding

OTHER CERTIFICATE AND TRAINING PROGRAMS

Allied Health
Child Development
Criminal Justice
ALLIED HEALTH
EMERGENCY MEDICAL TECHNICIAN CERTIFICATE

This is a one semester course granting a certificate of completion for the Emergency Medical Technician program. This program of study allows the successful student eligibility to challenge the Michigan Department of Public Health State Examination and be licensed as an EMT. The course requires six hours of lecture per week for 16 weeks and six hours of clinical practice in one of several local cooperating hospitals starting in the sixth week of the semester. It is recommended that the student enroll in Emergency Health Care, PE205, prior to the EMT course. Nine credit hours are required.

**FALL SEMESTER**
Emergency Medical Tech    AH200       9

**SPRING SEMESTER**
Emergency Health Care    PE205       2

RECOMMENDED SCHEDULE

CERTIFICATE OF COMPLETION BY AN OUTSIDE AGENCY MAY BE AWARDED TO STUDENTS FINISHING THIS PROGRAM.
Admission into the apprenticeship training program is gained by way of employment and sponsorship by the employer and depends upon a training agreement between the employer, employee, and the United States Bureau of Apprenticeship and Training. Montcalm Community College coordinates the training plan and provides the related instruction.

Each semester of apprenticeship "related instruction" is 16 weeks in length, with the trainee usually taking two courses per semester. A competency examination may result in a waiver of a required course. Official transcripts may also be used for this purpose.

Entrance requirements are established by the employer in accordance with existing Bureau of Apprenticeship and Training standards. Continuation in the training program is dependent upon employment status and level of achievement.

The related instruction schedule shown below is for apprentice tool and die designers. Programs for machinists, plastic mold designers, and mold and die makers, are also available. Thirty-two credit hours are required for completion.

<table>
<thead>
<tr>
<th>FIRST LEVEL COURSES</th>
<th>SECOND LEVEL COURSES</th>
<th>THIRD LEVEL COURSES</th>
<th>FOURTH LEVEL COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shop Math I</td>
<td>Sketching</td>
<td>Machine Tool Theory</td>
<td>Tool &amp; Die Design II</td>
</tr>
<tr>
<td>Shop Drawing</td>
<td>Layout &amp; precision Measure</td>
<td>IT100 2</td>
<td>Tool &amp; Die Design II</td>
</tr>
<tr>
<td>Blueprint Reading</td>
<td>Shop Math III</td>
<td>IT270 2</td>
<td>Metallurgy &amp; Heat-Treatment</td>
</tr>
<tr>
<td>Shop Math II</td>
<td>Ind Safety &amp; First Aid</td>
<td>W125 2</td>
<td>Tool &amp; Die Design III</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD135 2</td>
<td>Basic CNC Operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IT102 2</td>
<td></td>
</tr>
</tbody>
</table>

**THESE COURSES ARE NOT LIMITED TO APPRENTICESHIP STUDENTS ONLY.**
AUTOMOTIVE SERVICING
CERTIFICATE

This automotive servicing program is designed to help the student gain her or his first job in the business. Selection of electives and additional courses will determine which state certificates can be earned. Request instructor help. Personal hand tools are required.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Tools &amp; Hardware</td>
<td>Auto Electrical Sys Theory I AM140 2</td>
</tr>
<tr>
<td>Engine Servicing I</td>
<td>Auto Electrical Sys Lab I AM141 3</td>
</tr>
<tr>
<td>Auto Brakes &amp; Servicing</td>
<td>Customer Relations RA251 2</td>
</tr>
<tr>
<td>Engine Servicing Theory II AM124 2</td>
<td>Basic Fluid Power IT253 3</td>
</tr>
<tr>
<td>Concepts in Electricity EL100 3</td>
<td>Automotive Welding WE110 3</td>
</tr>
<tr>
<td>Shop Math I  MA110 2</td>
<td>Approved Automotive Elective 2</td>
</tr>
<tr>
<td>or Elementary Algebra MA100 3</td>
<td></td>
</tr>
<tr>
<td>Improving Reading &amp; Writing SD175 3</td>
<td></td>
</tr>
<tr>
<td>Approved Automotive Elective 2</td>
<td></td>
</tr>
</tbody>
</table>

ASSOCIATE DEGREE IN AUTOMOTIVE TECHNOLOGY IS ALSO AVAILABLE SEE PAGE 23
BUSINESS STUDIES
CERTIFICATE
SMALL BUSINESS DEVELOPMENT/MANAGEMENT

The one-year certificate in small business development/management will prepare the student to handle bookkeeping, determine prices, deal with customers, employ some computer applications, and assist in new business development. Twenty-nine credit hours required.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>Intro to Data Processing</td>
<td>Customer Relations</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>Acctg for Small Business</td>
</tr>
<tr>
<td>Legal Environ of Business</td>
<td>Microcomputers - Operating</td>
</tr>
<tr>
<td>Marketing</td>
<td>Systems and Applications</td>
</tr>
<tr>
<td>BA136 3</td>
<td>BA235 3</td>
</tr>
<tr>
<td>DP110 3</td>
<td>BA251 2</td>
</tr>
<tr>
<td>OE120 3</td>
<td>BA106 3</td>
</tr>
<tr>
<td>BA200 3</td>
<td>DP116 3</td>
</tr>
<tr>
<td>BA233 3</td>
<td>BA234 3</td>
</tr>
</tbody>
</table>

AN ASSOCIATE DEGREE IN SMALL BUSINESS/DEVELOPMENT MANAGEMENT IS ALSO AVAILABLE
SEE PAGE 27
This 12 credit hour certificate program is specifically designed to prepare candidates to administer and/or be employed in child care centers. Candidates may also seek employment as a teacher's aide in public school preschool programs. These courses may also be used in conjunction with the child development associate credential, which is granted by the National Credentialing Program. The following four courses have been developed for this program.

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to CDA</td>
<td>CDA100</td>
<td>3</td>
</tr>
<tr>
<td>Child Development: Preschool</td>
<td>CDA110</td>
<td>3</td>
</tr>
<tr>
<td>Years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preschool Curriculum</td>
<td>CDA120</td>
<td>3</td>
</tr>
<tr>
<td>Administration of Early</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood Programs</td>
<td>CDA130</td>
<td>3</td>
</tr>
</tbody>
</table>

These courses are not limited to students desiring this certificate.

A certificate of completion by an outside agency may be awarded to students finishing this program.
COSMETOLOGY CERTIFICATE

The Cosmetology Program is approved by the Michigan Department of Licensing and Regulations and prepares students to take the State Licensing Board Examination. Instruction is scheduled for five days per week, four and one-half hours per day and includes over 1,500 hours of training. Over 900 hours will be spent in laboratory work during which students practice and apply services studied in the classroom setting. A licensed cosmetology instructor directs students' activities in a completely equipped cosmetology laboratory. Thirty-two credit hours and 1500 attendance hours are required for a certificate. FALL ADMISSION ONLY.

<table>
<thead>
<tr>
<th>FALL SEMESTER*</th>
<th>SPRING SEMESTER*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Cosmetology</td>
<td>CS100</td>
</tr>
<tr>
<td>Intro to Cosmetology Lab</td>
<td>CS110</td>
</tr>
<tr>
<td>Beginning Hairstyling</td>
<td>CS101</td>
</tr>
<tr>
<td>Beginning Hairstyling Lab</td>
<td>CS111</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL SEMESTER*</th>
<th>SPRING SEMESTER*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Hairstyling</td>
<td>CS200</td>
</tr>
<tr>
<td>Advanced Hairstyling Lab</td>
<td>CS210</td>
</tr>
<tr>
<td>Advanced Hair Coloring and Permanent Waving</td>
<td>CS201</td>
</tr>
<tr>
<td>Advanced Hair Coloring and Permanent Waving Lab</td>
<td>CS211</td>
</tr>
</tbody>
</table>

*18 Week semester program - all courses are 9 weeks.

COSMETOLOGY STUDENTS WILL HAVE AN ADDITIONAL COST FOR UNIFORMS, SHOES AND LOCKER RENTAL.
This 15 credit hour, 5 course program is specifically designed to qualify students to apply for corrections officer positions with the Michigan Department of Corrections. To be hired, students must achieve a 2.0 or better grade in each course, pass a written Civil Service exam, pass a physical fitness exam and pass a personal interview. Background investigations are also done.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Corrections</td>
<td>CJ110</td>
<td>3</td>
</tr>
<tr>
<td>Legal Issues in Corrections</td>
<td>CJ220</td>
<td>3</td>
</tr>
<tr>
<td>Client Relations in Corrections</td>
<td>CJ250</td>
<td>3</td>
</tr>
<tr>
<td>Corrections Institutions/Facilities</td>
<td>CJ120</td>
<td>3</td>
</tr>
<tr>
<td>Client Growth &amp; Development</td>
<td>CJ260</td>
<td>3</td>
</tr>
</tbody>
</table>

A CERTIFICATE OF COMPLETION BY AN OUTSIDE AGENCY MAY BE AWARDED TO STUDENTS WHO SUCCESSFULLY FINISH THIS PROGRAM.

AN ASSOCIATE DEGREE IN CRIMINAL JUSTICE IS ALSO AVAILABLE SEE PAGE 29
DRAFTING CERTIFICATE

The drafting certificate is intended to help the student find his/her first job as a detailer or a drawing changer and is considered a first step toward an associate degree. Many of these courses will apply to the associate degree. Thirty credit hours required.

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Machine Operation</td>
<td>IT220</td>
<td>3</td>
</tr>
<tr>
<td>Shop Math I or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Algebra (MA100) MA110</td>
<td>MA110</td>
<td>2</td>
</tr>
<tr>
<td>Improving Reading &amp; Writing</td>
<td>SD175</td>
<td>3</td>
</tr>
<tr>
<td>Technical Drafting I TD100</td>
<td>TD100</td>
<td>3</td>
</tr>
<tr>
<td>Blueprint Reading TD105</td>
<td>TD105</td>
<td>2</td>
</tr>
<tr>
<td>Intro to Data Processing DP110</td>
<td>DP110</td>
<td>3</td>
</tr>
<tr>
<td>Customer Relations BA251</td>
<td>BA251</td>
<td>2</td>
</tr>
<tr>
<td>Sketching HU121</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Basic Fluid Power IT253</td>
<td>IT253</td>
<td>3</td>
</tr>
<tr>
<td>Manufacturing Processes IT260</td>
<td>IT260</td>
<td>2</td>
</tr>
<tr>
<td>Shop Math II or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inter Algebra (MA104) MA111</td>
<td>MA111</td>
<td>2</td>
</tr>
<tr>
<td>Technical Drafting II TD130</td>
<td>TD130</td>
<td>3</td>
</tr>
</tbody>
</table>

The alternate math courses are recommended for those with adequate background who are considering the Associate Degree at a later date.

AN ASSOCIATE DEGREE IN DRAFTING TECHNOLOGY IS ALSO AVAILABLE SEE PAGE 30
**ELECTRONICS TECHNOLOGY**

**CERTIFICATE**

This one-year certificate is intended to help the student find his/her first job in repair and servicing of routine electronic devices. It is considered a first step toward the associate degree and many of these courses apply directly. Thirty credit hours required.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving Reading &amp; Writing SD175</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Algebra MA104</td>
<td>3</td>
</tr>
<tr>
<td>Concepts in Electricity EL100</td>
<td>3</td>
</tr>
<tr>
<td>Electronic Circuit Analysis EL110</td>
<td>3</td>
</tr>
<tr>
<td>Elective (DP110 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Customer Relations BA251</td>
<td>2</td>
</tr>
<tr>
<td>Trigonometry MA102</td>
<td>3</td>
</tr>
<tr>
<td>Electronic Circuits EL210</td>
<td>3</td>
</tr>
<tr>
<td>Electronic Devices EL120</td>
<td>3</td>
</tr>
<tr>
<td>Elective (EL251 and EL252 recommended)</td>
<td>3</td>
</tr>
</tbody>
</table>

An associate degree in Electronics Technology is also available. See Page 31.
FOOD SERVICE TECHNOLOGY
CERTIFICATE

The certificate program in food service technology is designed to provide students with the skills and technical knowledge necessary for entry-level employment in the food service/restaurant industry. Students completing this program will have basic skills in food preparation, nutrition, and menu planning. A minimum of 30 credit hours is required.

Intro to Food Service  FST100  3  Food Production Skills -
Food Service Safety &  FST101  2  Entree  FST120  4
Sanitation
Food Production Skills -
General  FST110  4  Meat and Portion Control  FST130  3
Nutrition and Menu Planning  FST140  3
FST Electives  6  FST Electives  5

AN ASSOCIATE DEGREE IN FOOD SERVICE TECHNOLOGY IS ALSO AVAILABLE SEE PAGE 32

53
MACHINE TOOL OPERATION
CERTIFICATE

Students who successfully complete this program are eligible to obtain entry-level jobs in metal working industries as machinist helpers. Many of the following courses are also applicable toward an Associate Degree or an Apprenticeship Certificate. At least 30 credit hours required.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Machine Operation IT220 3</td>
<td>Advanced Machine Operation IT221 3</td>
</tr>
<tr>
<td>Basic Writing Skills or</td>
<td>Layout &amp; Precision Measure TD106 2</td>
</tr>
<tr>
<td>Freshman English I (LA100) SD170 2</td>
<td>Manufacturing Processes IT260 2</td>
</tr>
<tr>
<td>Basic CNC Operation IT102 2</td>
<td>Basic Fluid Power IT253 3</td>
</tr>
<tr>
<td>Metallurgy &amp; Heat Treatment IT130 2</td>
<td>Shop Math II or</td>
</tr>
<tr>
<td>Shop Math I or</td>
<td>Intermediate Algebra(MA104) MA111 2</td>
</tr>
<tr>
<td>Elementary Algebra (MA100) MA110 2</td>
<td>Industrial Quality Control IT270 2</td>
</tr>
<tr>
<td>Blueprint Reading TD105 2</td>
<td></td>
</tr>
<tr>
<td>Welding Tech &amp; Joint Prep WE107 3</td>
<td></td>
</tr>
</tbody>
</table>

54
NURSING

Our nursing curriculum is designed to promote career mobility for the student. The curriculum consists of two nursing programs, Level I and Level II. A student may wish to complete Level I, the Practical Nurse Program, and be eligible to write the National Council Licensure Examination (NCLEX-PN) for licensure and practice as an LPN. Another option is to complete both Level I and Level II and be eligible to write the National Council Licensure Examination (NCLEX-RN) for licensure and practice as an RN. A practicing LPN wishing to become an RN may complete Level II only and write the NCLEX-RN for licensure and practice as an RN.

Students interested in nursing should meet with a counselor or the Director of Nursing to discuss the specific admission requirements of both levels.

Admission into and progression during the Nursing Programs are dependent upon the attainment of a "C" or better grade in each required science (NS) and nursing (NUR) course.

LEVEL I

CERTIFICATE

A student with no prior nursing education may complete Level I and be awarded a certificate. The graduate may then become eligible to write the National Council Licensure Examination (NCLEX-PN) and practice as a Licensed Practical Nurse (LPN). Admission criteria of a general biology course with a "C" or better grade, not more than 10 years old (completed in one year if high school or one semester if college and must include a lab). Scores of 18 on the ASSET Reading and 19 on the ASSET Numerical Skills Tests must also be met prior to being admitted.

The following curriculum guide is recommended.

<table>
<thead>
<tr>
<th>FALL SEMESTER - 16 WEEKS</th>
<th>SPRING SEMESTER - 16 WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Nursing Skills I</td>
<td>Basic Nursing Skills II</td>
</tr>
<tr>
<td>NUR102 7</td>
<td>NUR104 12</td>
</tr>
<tr>
<td>Food in Health &amp; Disease</td>
<td>Maternal-Child Nursing I</td>
</tr>
<tr>
<td>NUR110 2</td>
<td>NUR145 3</td>
</tr>
<tr>
<td>Concepts of Interpersonal Relationships</td>
<td>Medical-Surgical II</td>
</tr>
<tr>
<td>NUR120 2</td>
<td>NUR151 3</td>
</tr>
<tr>
<td>Medical-Surgical I</td>
<td>Pharmacology II</td>
</tr>
<tr>
<td>NUR150 2</td>
<td>NUR162 1</td>
</tr>
<tr>
<td>Pharmacology I</td>
<td>Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>NUR161 1</td>
<td>NS203 4</td>
</tr>
<tr>
<td>Anatomy &amp; Physiology I</td>
<td></td>
</tr>
<tr>
<td>NS103 4</td>
<td></td>
</tr>
<tr>
<td>Child Psychology</td>
<td></td>
</tr>
<tr>
<td>-SS221 3</td>
<td></td>
</tr>
<tr>
<td>Physical Fitness</td>
<td></td>
</tr>
<tr>
<td>PE110/1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMER SEMESTER - 8 WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Practicum</td>
</tr>
<tr>
<td>NUR117 6</td>
</tr>
<tr>
<td>Nursing Seminar</td>
</tr>
<tr>
<td>NUR125 1</td>
</tr>
<tr>
<td>Medical-Surgical III</td>
</tr>
<tr>
<td>NUR152 1</td>
</tr>
</tbody>
</table>

AN ASSOCIATE DEGREE IN NURSING IS ALSO AVAILABLE SEE PAGE 34
OFFICE EDUCATION
CERTIFICATE
CLERK TYPIST

The objective of the clerk-typist curriculum is preparation for employment in a variety of office occupations which include the development of skills in the use of all office machinery and the knowledge needed to carry out routine office functions. Previous training in typing is desirable. A certificate will be awarded upon successful completion of the 31 credit hours listed below. Following this sequence, the program can be completed in one year. A student wishing to continue training may apply credits earned toward the secretarial or management programs.

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td>Intermediate Typing</td>
<td>OE101 3</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>OE120 3</td>
</tr>
<tr>
<td>Business Communications I</td>
<td>OE129 3</td>
</tr>
<tr>
<td>Information Processing I</td>
<td>OE225 4</td>
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<tr>
<td>Voice Transcription</td>
<td>OE220 3</td>
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</tbody>
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OFFICE EDUCATION
CERTIFICATE
INFORMATION PROCESSING

This program leads to a certificate in information processing and provides the student with a background and understanding of different types of electronic office equipment. This program is designed to prepare the student for initial employment in the information processing field. The 31 credit hours required can be completed in one year by following the sequence below.

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<thead>
<tr>
<th>FALL SEMESTER</th>
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<tbody>
<tr>
<td>Intermediate Typing</td>
<td>Intro to Data Processing</td>
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<td>OE101 3</td>
<td>DP110 3</td>
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<td>Business Mathematics</td>
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<td>OE120 3</td>
<td>OE130 3</td>
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<tr>
<td>Business Communications</td>
<td>Advanced Typing</td>
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<tr>
<td>OE129 3</td>
<td>OE202 3</td>
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<tr>
<td>Information Processing I</td>
<td>Office Procedures</td>
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<tr>
<td>OE225 4</td>
<td>OE230 3</td>
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<tr>
<td>SUMMER SEMESTER</td>
<td>Information Processing II</td>
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<td>Voice Transcription</td>
<td>OE226 3</td>
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AN ASSOCIATE DEGREE IN INFORMATION PROCESSING IS ALSO AVAILABLE SEE PAGE 39

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OFFICE EDUCATION
CERTIFICATE
LEGAL OFFICE ASSISTANT

This program leads to a certificate as a legal office assistant. The curriculum provides the student with the background and understanding of legal office assisting, practices, and procedures. The 32 required credit hours can be completed in one year by following the sequence below.

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<tr>
<th>FALL SEMESTER</th>
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<td>Legal Environ of Business</td>
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<td>BA200 3</td>
<td>BA105 3</td>
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<td>Intermediate Typing</td>
<td>Advanced Typing</td>
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<td>OE101 3</td>
<td>OE202 3</td>
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<tr>
<td>Business Communications I</td>
<td>Legal Office Procedures</td>
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<td>OE129 3</td>
<td>OE206 3</td>
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<tr>
<td>Legal Term &amp; Transcription</td>
<td>Information Processing I</td>
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<td>OE205 3</td>
<td>OE225 4</td>
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<td>Business Calculators</td>
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<td>Voice Transcription</td>
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<td>OE220 3</td>
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</table>
OFFICE EDUCATION
CERTIFICATE
MEDICAL OFFICE ASSISTANT

This program leads to a certificate as a medical office assistant. The curriculum provides the student with a background and understanding of medical office assisting and practice in medical office procedures. The 30 required credit hours can be completed in one year by following the sequence below.

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<tr>
<th>FALL SEMESTER</th>
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<tbody>
<tr>
<td>Intermediate Typing</td>
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<td>OE101 3</td>
<td>BA105 3</td>
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<td>Business Communications I</td>
<td>Emergency Health Care</td>
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<td>PE205 2</td>
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<td>Medical Terminology</td>
<td>Advanced Typing</td>
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<td>OE207 3</td>
<td>OE202 3</td>
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<tr>
<td>Information Processing I</td>
<td>Medical Office Procedures</td>
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<td>OE225 4</td>
<td>OE208 3</td>
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<td>Business Calculators</td>
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<td>Voice Transcription</td>
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<td>OE220 3</td>
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**AN ASSOCIATE DEGREE IN MEDICAL SECRETARY IS ALSO AVAILABLE SEE PAGE 38**
OFFICE EDUCATION
CERTIFICATE
STENOGRAPHER

This program is planned for the high school graduate who has majored in business and desires advanced studies. A student who has little or no previous business training may also wish to follow this curriculum. Upon completion of this 32 credit hour program, a certificate of achievement will be awarded. By following the sequence below, this program can be completed in one year.

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<tr>
<th>FALL SEMESTER</th>
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<tbody>
<tr>
<td>Intermediate Typing</td>
<td>Acct for Small Business</td>
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<td>BA105 3</td>
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<td>Shorthand I</td>
<td>Advanced Typing</td>
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<td>OE103 4</td>
<td>OE202 3</td>
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<tr>
<td>Business Mathematics</td>
<td>Shorthand II</td>
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<tr>
<td>OE120 3</td>
<td>OE104 4</td>
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<tr>
<td>Business Communications I</td>
<td>Office Procedures</td>
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<td>Voice Transcription</td>
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<td>OE220 3</td>
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</table>
WELDING TECHNOLOGY
CERTIFICATE

Welding is a skill which is essential to many industries. This program stresses the development of techniques and understanding of quality weldments. Effects of heat and stress on welded materials are studied and practiced in the laboratory. The student may develop sufficient skill for American Welding Society Certification*. Additional welding courses are available for those who wish to develop their skills even further. Thirty-two credit hours required.

FALL SEMESTER
Basic Machine Operations IT220 3
Welding Tech & Joint Prep WE107 3
Welding & Fabrication I WE108 3
Shop Math I MA110 2
Blueprint Reading TD105 2
Metallurgy & Heat Treatment IT130 2
Basic Writing Skills SD170 2

SPRING SEMESTER
Welding & Fabrication II WE120 3
Related Welding Skills WE122 3
Layout & Precision Measure TD106 2
Sketching HU121 2
Customer Relations EA251 2
Basic Fluid Power IT253 3

*THE COLLEGE DOES NOT ATTEMPT TO CERTIFY WELDERS

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These two pages will help locate descriptions of individual courses, such as HU122, Introduction to Art, and LA210, Speech. Use the index below in the following manner: Find the subject matter in which you are interested; the latter prefix that follows tells where to find descriptions of the courses which cover that subject matter. For example, art course descriptions would be found under HU.

Accounting/BA
Acting/LA
Advertising/BA
Algebra/MA
Allied Health/AH
Analytic Geometry/MA
Anatomy/NS
Anthropology/SS
Art/HU
Art (Appreciation)/HU
Automotive Mechanics/AM
Biology/NS
Blueprint Reading/TD
Bookkeeping/OE
Botany/NS
Business Communications/OE
Business Correspondence/OE
Business Law/BA
Business Mathematics/OE
Calculus/MA
Ceramics/HU
Chemistry/NS
Child Development/CDA
Communications/LA
Composition/LA
Computer Programming/DP
Computers/DP
Correspondence/OE
Cosmetology/CS
Criminal Justice/CJ
Data Processing/DP
Die Drafting (Apprentice)/TD
Diesel Engine/AM
Directed Studies/XY
Drafting Technology/TD
Drafting & Design (App)/TD
Drama/LA
Drawing/HU
Economics/SS
Electricity/Electronics/EL
Emergency Health Care/AH
English/LA
Entrepreneurship/BA
Executive Secretary Studies/OE
Fitness/PE

Food Service/FST
French/FL
General Business/BA
Geography/SS,NS
Government/SS
Heat Treatment Metals (App.)/IT
History/SS
Humanities/HU
Human Relations/BA
Hydraulics/IT
Industrial Supervision & Management/BA
Journalism/LA
Law (Business)/BA
Law Enforcement/LE
Legal Secretary/OE
Literature/LA
Machine (Lab) (App.)/IT
Machine Shop/IT
Management/BA
Marketing/BA
Mathematics/MA
Mathematics (App.)/MA
Mathematics (Business)/OE
Medical Shorthand/OE
Medical Terminology/OE
Metallurgy Theory (App.)/IT
Mold Making & Die Casting (Apprentice)/TD
Music/HU
Natural Science/NS
Nursing (Practical)/NUR
Nursing (ADN)/NUR
Office Practice/OE
Oral Interpretation/LA
Painting/HU
Paralegal/FL
Philosophy/HU
Photography/HU
Physical Education/PE
Physical Science/NS
Physics/NS
Physiology/NS
Plastics/IT/IT
Political Science/SS
Psychology/SS
Radiologic Technology/RAD
Reading/SD
Religion/HU
Safety and First Aid/IT
Salesmanship/BA
Science/NS
Sculpture/HU
Secretarial Studies/OE
Shop Drawing/TD
Shorthand/OE
Sketching/HU
Small Business/BA
Social Science/SS
Sociology/SS
Spanish/FL
Speech/LA
Sports/PE
Statistics/MA
Supervision and Management/BA
Taxation (Business)/BA
Technical Drafting/TD
Theater/LA
Tool Drafting (App.)/TD
Transcription/OE
Trigonometry/MA
Typewriting/OE
Welding (Trades (App.))/WE
Welding Technology/WE
Word Processing/OE
Writing/LA, SD
Zoology/NS
COURSE DESCRIPTIONS

IN THIS SECTION, DESCRIPTIONS OF ALL COURSES OFFERED AT MONTCALM COMMUNITY COLLEGE ARE LISTED ALPHABETICALLY.

NUMBERS IN PARENTHESES () WHICH FOLLOW COURSE TITLES REPRESENT THE TOTAL CREDITS, HOURS OF LECTURE/DEMONSTRATION, AND HOURS OF LABORATORY IN THAT ORDER. (FOR EXAMPLE, (3,2,2) REPRESENTS THREE SEMESTER HOURS OF CREDIT GIVEN FOR THE COURSE, TWO OF THE HOURS WILL BE LECTURE/DEMONSTRATION, AND TWO OF THE HOURS WILL BE LABORATORY-TYPE CLASSES.) IN SOME CASES THE INSTRUCTOR WILL ASSIGN ADDITIONAL LABORATORY HOURS. SEE DIAGRAM BELOW FOR ILLUSTRATION.

*Number of lecture/demonstration hours

Number of semester hours of credit given

*Number of laboratory hours

OE226 Information Processing II (3,0,4) **Prerequisites: OE225, ***Co-requisites: OE220

This course consists of computer-generated graphics to include: terminology, techniques and application of computer aided drafting (CAD) engineering, tool design, architecture, and electronics. Two dimensional design drafting is stressed. Four hours lecture/laboratory combination.

*Combined these equal the total number of classroom/laboratory contact hours.

**Prerequisites: A prerequisite is a course required to have been successfully completed prior to enrollment in another course. They are indicated following the course titles. Students must have written approval from the appropriate instructional department if the prerequisite has not been met.

***Co-requisites: A co-requisite is a course which, if not taken ahead of time, must be taken at the same time. Co-requisites are indicated following course titles. Students must have written approval from the appropriate instructional department if the co-requisite has not been met.
ALLIED HEALTH

AH125  Adult Foster Care in Michigan (1,1,0) Prerequisites: None
This is a course that covers the history and philosophy of adult foster
care and its role in the continuum of services to mentally ill, mentally
retarded, and aging clients. Funding, licensing, systems that impact
adult foster care and the role of the caregiver will also be covered.

AH220  Coronary Care (4,3,2) Prerequisites: None
This course is an introduction to the principles of nursing management of
the patient with heart disease. Emphasis will be on identification of
cardiac dysrhythmias and therapeutic intervention.

STUDENTS SHOULD HAVE COMPLETED AH125, ADULT FOSTER CARE IN MICHIGAN (1,1,0) AS A
PREREQUISITE FOR THE FOLLOWING ONE CREDIT COURSES.

AH110  Adult Foster Care Programming (1,1,0) Prerequisites: AH125
This is a skill development course that assists the adult foster care
caregiver in becoming an integral part of a client's learning.
Participants will be provided with information and opportunities to learn
specific skills of observation, client assessment and successful teaching
principles. A program instrument will be provided that allows caregivers
to incorporate many variables that affect the client's learning, e.g.
family, friends, physical environment of the home, the community.

AH135  The Aging Process (1,1,0) Prerequisites: AH125
This course covers a description and a clarification of the aging process
historical and current approaches to working with the elderly, and the
role of the Adult Foster Care Program and the caregiver.

AH136  Programs for Aged Residents (1,1,0) Prerequisites: AH125
As a result of this course, providers will be able to establish programs
for elderly residents of adult care facilities. Included are practical
tips for getting started and ensuring success. Providers will learn how
to identify needs/problems, develop an individual or group program,
prepare a schedule of activities, and locate resources that can assist in
program planning.

AH145  Mental Retardation (1,1,0) Prerequisites: AH125
This course covers the definition, causes and classification of mental
retardation, historical and current approaches to working with mentally
retarded, and the role of an adult foster care program and the caregiver.

AH146  Programs for Mentally Retarded Residents (1,1,0) Prerequisites: AH125
This is a skill development course that presents techniques to assess and
teach mentally retarded adult foster care residents. The techniques will
be applicable to all ranges of learning, from basic care to skills needed
for independent community living. The course will provide an opportunity
for participants to design, implement, and assess programs for their
present clients.
AH155  Health Care Incidents and Accidents (1,1,0) Prerequisites: AH125
This is a skill development course that covers the techniques of emergency care specifically relevant to the adult foster care setting.

AH160  AFC Foods and Nutrition (1,1,0) Prerequisites: AH125
AFC Foods and Nutrition is designed to provide a problem-solving approach to improving resident nutritional status and caregiver kitchen efficiency. The beginning units build upon each other from nutrients to food groups to meal planning to food selection to storage and sanitation. The remaining units deal with special issues in AFC homes, such as special diets, nutrient/drug interactions, teaching/eating skills, and identifying nutrition resources.

AH165  Facility Environmental Management (1,1,0) Prerequisites: AH125
This course reviews good staffing procedures, including hiring policy, staff evaluation, inservice training, responsibility delegation, time management, staff "burn-out," and insuring proper environment conducive to resident growth. The course is specifically designed for the caregiver who has supervision of staff and provides direct resident care.

AH170  Activity Programming for the Adult Foster Care Resident (1,1,0) Prerequisites: AH125
This is a skill development course that covers development of recreation and leisure time activities as a part of the overall program for a client. The course will include developing activity for in-the-home and in-the-community groups and individuals.

AH175  Health Care Human Growth and Development (1,1,0) Prerequisites: AH125
This course will review body systems and discuss the normal aging process, summarize common ailments, and discuss common terminology which will be useful in future courses.

AH176  Death and Dying (1,1,0) Prerequisites: AH125
This course will explore the concept of death and dying as it impacts on all types of individual residents of various ages, home environment, and families.

AH180  Support Staff Development (1,1,0) Prerequisites: AH125
This course is intended to meet the varied aspects of the needs expressed by the employees in an AFC facility. The orientation is focused on training for the cook, substitute worker, aide, laundry worker, bookkeeper, driver, housekeeper, and other persons who have contact with the residents. The philosophy of adult foster care, licensing regulations, and inspection of attitudes, understanding, and behavior toward residents will be presented.

AH190  Attitude and Behavior Management in AFC (1,1,0) Prerequisites: AH125
A practical course in how to deal effectively with difficult behaviors and attitudes. A number of allowable approaches, including behavior modification, will be considered and discussed. Examples: dealing with residents who pose a fire hazard with smoking; helping a resident overcome a negative attitude; turning hostility into helpfulness; assisting a resident to "get motivation," dealing with drug abuse problems. Other topics will also be discussed.
AH195 Understanding and Working with the Mentally Ill (1,1,0) Prerequisites: AH125
This course will describe and explain the major types of mental disorders. This will include anxiety disorders, depression, personality disorders, and schizophrenia. Also presented and discussed will be guidelines in approaching and working with residents with these disorders.

AH196 Programs for Mentally Ill Residents (1,1,0) Prerequisites: AH125
This is a skill development course that gives the caregiver specific techniques in assisting mentally ill clients develop skills for moving toward independent living. The course will provide an opportunity for participants to design, implement, and assess programs for their present clients.

AH200 Emergency Medical Technician (9,6,6) Prerequisites: None
This course includes orientation to the EMT, legal responsibilities, anatomy, physiology, diagnostic signs, triage, basic cardiac life support, injuries to the body, illnesses of the body, childbirth, mental health, environmental injuries, communications and emergency vehicles (including extrication). Upon successful completion the student will be eligible to challenge the Michigan Department of Public Health State Exam.

AH202 Emergency Medical Technician Specialist (7,5,4) Prerequisites: Licensed Basic Emergency Medical Technician by Michigan Department of Public Health
This course includes orientation to EMT specialist, legal responsibilities, anatomy, physiology, review of all emergency medical technician aspects of care, acid base balance, body chemistry, intravenous therapy, fluid therapy, advanced airway management to include endotracheal intubation, esophageal obturator airway, esophageal gastric tube airway, tracheal suctioning, magill forcep usage. Also covered are communications, cardiac monitor interpretation, and recognition of cardiac dysrhythmias.
AM104  Automotive Tools & Hardware (1,1,0) Prerequisites: None
A study of the standard tools-of-the-trade; their proper and improper use
and care, their several size designations, and their current sources and
costs.

AM106  Engine Servicing I (2,1,2) Prerequisites: None
This is a course dealing with general engine servicing and principles of
operation. Emphasis will be given to proper installation, adjustment,
and inspection of belts, hoses, sparkplugs, ignition points, and filters.
Simple test devices will be included as well as use of human sensory
perception.

AM108  Auto Brakes and Servicing (3,1,3) Pre- or Co- requisites: AM104
This is a course dealing with general chassis servicing and light
maintenance. Included are battery servicing, fuses, wipers, bulbs,
tires, and lubrication. Emphasis will be given to rebuilding and
servicing brake systems and components.

AM114  Basic Small Engine Repair (2,1,1,) Prerequisites: None
This course provides a basic knowledge of the operation, maintenance, and
minor repair procedures of small gasoline engines. This course is not
recommended as an approved elective for the associate degree.

AM118  Auto Maintenance for the Homemaker (2,1,1,) Prerequisites: None
This course is designed to furnish the non-automotive student with the
necessary knowledge to recognize danger signals, handle emergency
problems, make minor repairs and perform general maintenance on the
automobile. This course is not recommended as an approved elective for
the associate degree.

AM124  Engine Servicing Theory II (3,3,0) Pre- or Co-requisites: AM106
This course covers cylinder head and crankcase details of construction,
operations, and nomenclature. Methods of inspecting and rebuilding are
discussed, as students are introduced to specification charts. For full
benefit enroll in AM125 at the same time.

AM125  Engine Servicing Lab II (3,0,4) Pre-or-Co-requisite: AM104, AM124 or
student must have written departmental approval
This lab course gives students the opportunity to experience the use of
special procedures, tools, measuring instruments, test devices, and
specifications as applied to engine rebuilding.

AM130  Automotive Steering and Suspension Theory (2,2,0) Pre- or Co-requisites:
IT253 or student must have written departmental approval
This course is a study of the history, design and principles of
suspension and steering systems. Included are the various methods of
aligning and servicing the many varieties of systems in use today. For
full benefit, enroll in AM131 at the same time.
AM131 Automotive Steering and Suspension Lab (2,0,3) Pre- or Co-requisites: AM104, AM130 or student must have written departmental approval. This course is designed to furnish the student the necessary technical knowledge and the practical experience to diagnose, align, and repair front end, steering and suspension problems. All American-made and some foreign systems are covered.

AM132 Manual Transmissions Theory (2,2,0) Prerequisites: None. This course covers principles, history, and methods of servicing the many varieties of manual transmissions, differentials, and drivelines in use today. For maximum gain, enroll in AM133 at the same time.

AM133 Manual Transmissions Lab (2,0,3) Pre- or Co-requisites: AM104, AM132, or student must have written departmental approval. This course gives useful practical experience in diagnosing troubles, repairing and adjusting manual transmissions, differentials, and drivelines covered in AM132.

AM140 Automotive Electrical Systems Theory I (2,2,0) Pre- or Co-requisites: EL100 or student must have written departmental approval. This course includes the principles of operation, servicing, troubleshooting and repairing the several starting and charging systems in use today, including batteries.

AM141 Automotive Electrical Systems Lab I (3,0,4) Pre- or Co-requisites: AM104, AM140. This course gives the student the practical experience necessary to inspect, test, service and repair all components in the cranking and charging systems.

AM142 Automotive Electrical Systems Theory II (2,2,0) Pre- or Co-requisites: EL100. A very complete study of the many electrical systems (except starting, charging, and ignition) used in automobiles. Included are lighting circuits, horn circuits, directional signal circuits, power accessory systems, heating circuits, and all warning system circuits.

AM143 Automotive Electrical Systems Lab II (3,0,4) Pre- or Co-requisites: AM104, AM142. This course is designed to furnish the student with the necessary technical knowledge and practical experience to inspect, diagnose, test, service, and repair all chassis electrical systems studied in AM142.

AM160 Auto Restoration: Metal Bodywork (2,1,2) Prerequisites: None. A course for developing knowledge and skill in traditional metal forming, joining, and smoothing methods, as used primarily on older automobiles. Leading and preparation for painting are included, but painting is not. Students may bring their own parts to class. A materials fee is added.
AM164 Automotive Restoration: Surface Preparation and Painting (2,1,2)
Prerequisites: None
In addition to the technical aspects of surface preparation, priming, finishing materials and their application, this course deals with the special artistic touches, which make a good paint job become a work of beauty. It is intended for the meticulous craftsman. A materials fee is added.

AM204 Automotive Parts and Service Management (2,2,0) Prerequisites: None
This course deals with the day-to-day operation of the parts and service departments. Included are techniques of pricing, inventory control, scheduling, estimating, quality control, service personnel and customer relations; money management, time management, parts ordering, selling, service training and customer followup.

AM210 Automotive Engine Performance Theory I (2,2,0) Pre- or Co-requisites: None
This course covers the principles of operation, diagnosis, and repair of several kinds of carburetors, fuel injectors, and turbochargers as used in today's automobiles. To ensure more complete understanding, enroll in AM211 at the same time.

AM211 Automotive Engine Performance Lab I (2,0,3) Pre- or Co-requisites: AM210, AM104
This course allows the student to service, diagnose, and repair automobiles, applying the knowledge gained in AM210. Use of special analytical equipment is stressed.

AM212 Automotive Engine Performance Theory II (2,2,0) Pre- or Co-requisites: AM211, EL100, or student must have written departmental approval
This course is a study of the several types of ignition and emission control systems in use today. Included are principles of operation, servicing, and troubleshooting. To ensure maximum understanding, enroll in AM213 at the same time.

AM213 Automotive Engine Performance Lab II (3,0,4) Pre- or Co-requisites: AM212
This lab gives students many opportunities to apply the theories gained in AM212 above. Emphasis is given to the use of special test equipment in troubleshooting and adjusting systems after rebuilding or repair.

AM230 Automatic Transmission Theory (2,2,0) Pre- or Co-requisites: IT253, or student must have written departmental approval
This course is a study of the history, principles, parts, and operation of several makes of automatic transmissions. Included is an in-depth study of the hydraulic and mechanical functional aspects of the automatic. For best results, enroll in AM231 at the same time.

AM231 Automatic Transmission Lab (2,0,3) Pre- or Co-requisites: AM104, AM230, or student must have written departmental approval
This course is designed to furnish the student with the necessary technical knowledge and the practical experience to diagnose and repair automatic transmission problems. All modern popular makes of automatics are covered. It encourages application of all principles learned in AM230.
AM254 Diesel Engine Theory (3,3,0) Prerequisites: None
This course is a study, in theory, of basic diesel engines and related components not usually found on automotive gas engines. Included is the study of fuel injection systems, governors, turbo chargers, and superchargers.

AM255 Diesel Engine Lab (3,0,4) Pre- or Co-requisites: AM104, AM254, or student must have written departmental approval.
This course is designed to furnish the student with the necessary technical knowledge and the practical experience to service, repair, and diagnose diesel engines in the truck, farm, or heavy equipment fields.

AM260 Automotive Heating and Air Conditioning Theory (2,2,0) Prerequisites: None.
This course includes the several different systems and components used for heating and air conditioning in today's vehicles. Also included are testing, troubleshooting, and servicing techniques. For practical experience, enroll in AM261 at the same time.

AM261 Automotive Heating and Air Conditioning Lab (2,0,3) Pre- or Co-requisites: AM260, AM104, or student must have written departmental approval.
This course allows students to apply the knowledge gained in AM260 by providing several service opportunities on operating systems, using special test equipment.
BUSINESS ADMINISTRATION

BA106 Accounting for Small Business (3,3,0) Prerequisites: None
This course provides basic accounting principles and practices, from a theoretical and practical approach, with emphasis on the small business.

BA115 Financial Accounting (4,4,0) Prerequisites: None
This course is an introduction to accounting fundamentals including: the meaning and purpose of accounting statements, balance sheets, and profit and loss statements; the theory of debits and credits; accounts payable and receivable; the trial balance; adjusting and closing entries; accounting for notes, interest, unearned and accrued items.

BA116 Managerial Accounting (4,4,0) Prerequisites: BA115, Pre- or Co-
requisites: DP113
Basic procedures for accumulating and using the accounting data needed for managerial planning, controlling, and decision making.

BA135 Introduction to Business (3,3,0) Prerequisites: None
This course is an introduction to the environment, nature, and opportunities of business. The study of ownership and operation of a business includes: marketing, location and layout, personnel, finance, controls for decision making, and the legal environment of business.

BA136 Entrepreneurship (3,3,0) Prerequisites: None
This course examines the nature and characteristics of the entrepreneur—the risk-taker, and the roles of business creators in American society. In addition, this course looks at the critical factors and special problems associated with the process of creating potential business ventures.

BA200 The Legal Environment of Business (3,3,0) Prerequisites: None
This course is an introduction to the legal system and the common body of knowledge as it relates to the environment of business, providing emphasis on business relations with society and government.

BA215 Cost Accounting I (3,3,0) Prerequisites: BA116
This course is a study of cost information systems and accumulation procedures for the purpose of budgetary planning. The recording of and preparation of factory overhead, material, and labor costs in a form acceptable in AICPA will be taught.

BA216 Cost Accounting II (3,3,0) Prerequisites: BA215
Planning for profits and sales and controlling of costs and profits are covered. Emphasis will be placed on cost and profit analysis.

BA233 Principles of Marketing (3,3,0) Prerequisites: None
This course is an introduction to marketing, with special emphasis upon retailing from the standpoint of both consumers and businessmen, including the establishment, financing, and organizing of merchandising institutions, as well as buying and selling procedures.
BA234  Retailing (3,3,0) Prerequisites: None
This course is a continuation of BA233 with emphasis placed upon control of the store operation.

BA235  Small Business Management (3,3,0) Prerequisites: None
This is a study of the operation of small business. Included in the course are topics dealing with organization, financial structure, record keeping, and promotion of small business. Also included are topics dealing with salesmanship, personnel relations, customer psychology, and business law.

BA237  Management (3,3,0) Prerequisites: None
This is a study of management with three primary purposes: to cover in detail the managerial process, to understand the purposes of organizations and how they function, and to understand human behavior as it relates to organizations.

BA246  Tax Accounting (3,3,0) Prerequisites: None
Local, state, and federal taxes of sole proprietorships, partnerships, and corporations are studied. Tax practices and procedures relating to assessment and collections are also covered.

BA248  Advertising (3,3,0) Prerequisites: None
The role of advertising in society is investigated along with its institutions and media. The creation and planning of advertising is covered along with effective promotional activities.

BA250  Human Relations (3,3,0) Prerequisites: None
This is a study of the methods of selecting and training personnel, discipline problems, morale, wages, fringe benefits, promotions, separations, and other related areas.

BA251  Customer Relations (2,2,0) Prerequisites: None
This course is an exploration of the ways and means of making good first impressions, maintaining satisfaction, communicating effectively, handling complaints, and avoiding the mistakes which offend customers. Emphasis will be given to face-to-face as well as telephone contacts.

BA252  Financial Principles (3,3,0) Prerequisites: None
Monetary and credit systems are covered extensively with emphasis placed on meeting the demand for funds, the factors affecting the supply of funds, and monetary and credit policies and problems.

BA253  Principles of Investment (3,3,0) Prerequisites: BA135, or student must have written departmental approval.
An introduction to the securities market with special attention to corporate securities and financial policies including: limited income securities, common stock, special classes of securities, security analysis, and portfolio development policies.
BA255 Purchasing (3,3,0) Prerequisites: BA237
The purchasing department's role in logistics, objectives, and contributions are studied. Coordination of purchasing with other management functions, such as materials management, the computer, and ethics are studied.

BA265 Sales Management (3,3,0) Prerequisites: None
This course is designed to provide the student with the necessary background in organization, management, and operation of an effective sales force. The laws of effective selling are covered extensively.

BA268 Credits and Collections (3,3,0) Prerequisites: None
This course is designed to provide the student with an understanding of basic credit principles, by explanation of credit as a tool, analysis of dealer's and individuals's ability to pay, use of credit references, and development of skills and techniques normally used in a credit department for collection of past due accounts.
CDA100  Introduction to CDA (3,2,2) Prerequisites: High school diploma or GED
This course will examine the Child Development Associate (CDA) Credential, the Credential Award System, explore ways the student can meet the CDA Competency Standards, and provide assistance in beginning the credentialing process.

CDA110  Child Development: Preschool Years (3,3,0) Corequisites: Recommended that CDA100 be taken concurrently by students seeking the CDA credential
Psychological and physical growth patterns, emotional, social and cognitive skills from birth to age six. Includes: behavior, discipline, ages and developmental stages, and acquisition of skills in recognizing and interpreting child behavior.

CDA120  Preschool Curriculum (3,2,2) Prerequisites: CDA110
This course will explore the curriculum guides needed in preschool education concentrating on the social, emotional, creative, physical cognitive skill development and needs of preschool children.

CDA130  Administration of Early Childhood Programs (3,2,2) Prerequisites: None
An in-depth study of the role of the early childhood program administrator in such areas as food services, health, and safety; implementation and supervision of an early childhood program; business techniques necessary to operate a successful early childhood program.
**CE033 Basic Income Tax Preparation (5,5,1)** Prerequisites: None
The H & R Block Income Tax Course enables the student with no prior knowledge to begin to gain a solid and working understanding of the intricacies surrounding most income tax returns. Study includes illustrated lectures, discussions and the practical use of tax forms. There are 27 three-hour classes. Students who successfully complete the course are awarded the H & R Block certificate of achievement. The five (5) hours credit may be used only for general credit and are not applicable to any business requirement for one-or two-year business curricula.

**CE040 Red Cross Multimedia First Aid & CPR (1,1,0)** Prerequisites: None
This course will provide fundamental principles and skills in basic first aid and accident prevention. Participants will also be prepared, through knowledge and skill development, to meet the needs of most situations in which CPR is needed and medical assistance is not excessively delayed.

**CE100 Basic Consumerism (3,3,0)** Prerequisites: None
This is a course in developing basic consumer principles and skills to meet the ever-challenging and ever-changing demands of day-to-day living in a free enterprise economic system. The course emphasizes consumer protection, resource management, decision-making, planning for food buying, purchasing health services, insurances, using community resources and credit.
COSMETOLOGY

CS100 Introduction to Cosmetology (3,3,0) Prerequisites: None
This course is an orientation to the science of cosmetology and includes cosmetology laws and rules as well as sterilization and sanitation techniques and policies. Basic hair shapings and finger waving will also be covered in this course. Students will be required to register with the Michigan State Board of Cosmetology during the first week of class.

CS101 Beginning Hairstyling (3,3,0) Prerequisites: CS100
Student will gain more experience in finger waving and learn the basics of pin-curling, shampooing, manicuring and facials. The use and care of cosmetology equipment will also be covered.

CS102 Beginning Hair Cutting and Permanent Waving Theory (3,3,0) Prerequisites: CS101
This course will provide further training in the elements of basic hairstyling and an introduction to hair shaping, permanent waving and scalp and hair treatments. Basic electrical theory as related to cosmetology and the use of thermal and specialized electrical equipment will also be covered.

CS103 Beginning Hair Coloring and Professional Development Theory (3,3,0) Prerequisites: CS102
This course will cover basics in hair coloring, chemical hair relaxing, wiggery and professional development and ethics.

CS110 Introduction to Cosmetology Lab (4,0,8) Co-Requisites: CS100
This course provides students with laboratory experiences in the science of cosmetology and includes cosmetology laws and rules as well as sterilization and sanitation techniques and policies. The student will practice basic hair shapings and finger waving.

CS111 Beginning Hairstyling Lab (4,0,8) Co-Requisites: CS101
This course will provide students with laboratory experiences in the practice of finger waving, and the practice of basic pin-curling, shampooing, manicuring, and facials. The use of cosmetology equipment will be stressed.

CS112 Beginning Hair Cutting and Permanent Waving Lab (4,0,8) Co-Requisites: CS102
This course provides students with laboratory experiences in basic hairstyling and hair shaping, permanent waving and scalp and hair treatments. Basic electrical theory as related to cosmetology will be applied and the use of thermal and specialized electrical equipment will be practiced.

CS113 Beginning Hair Coloring and Professional Development Lab (4,0,8) Co-Requisites: CS103
This course will provide students with laboratory experience in haircoloring, chemical hair relaxing, wiggery and professional development and ethics.
CS200 **Advanced Hairstyling** (3,3,0) Prerequisites: CS103
This course will provide students with an introduction to cosmetic chemistry. Students will receive training in advanced hairstyling and shaping.

CS201 **Advanced Hair Coloring and Permanent Waving** (3,3,0) Prerequisites: CS200
This course is a continuation of advanced hairstyling with special emphasis on coloring and permanent waving. The basics of trichology will also be presented.

CS202 **Advanced Hairstyling II** (3,3,0) Prerequisites: CS201
This course continues to develop the student's technical skills in hairstyling, shaping, coloring and permanent waving. A continuation of the science of trichology will further be developed.

CS203 **Cosmetology Salon Management and Board Review Theory** (3,3,0)
Prerequisites: CS202
This course will provide training to students in salon management techniques, professional ethics, and job preparation skills. A review of all theoretical and practical experiences will be covered in a 35-hour segment of this course, designed to prepare students for the State Board Licensing Examination.

CS210 **Advanced Hairstyling Lab** (5,0,10) Co-requisite: CS200
This course will provide students with laboratory experiences in cosmetic chemistry at the introductory level. Students will practice advanced hairstyling and shaping.

CS211 **Advanced Hair Coloring and Permanent Waving Lab** (5,0,10) Co-requisites: CS201
This course will provide students with laboratory experiences in advanced hairstyling with emphasis on coloring and permanent waving. The student will become familiar with the basics of trichology.

CS212 **Advanced Hairstyling Lab II** (5,0,10) Co-requisites: CS202
This course will provide students with further laboratory experiences in the technical skills of hairstyling, shaping, coloring, and permanent waving. Further study in the science of trichology will be stressed and further development of all basic skills learned through our program will be improved.

CS213 **Salon Management and Board Review Lab** (5,0,10) Co-requisites: CS203.
This course will provide students with training in salon management techniques, professional ethics and job preparation skill in the laboratory setting. A review of all theoretical and practical experiences will be covered in a 35-hour segment of this course, which is designed to prepare students for the State Board Licensing Examination. Special emphasis will be placed on the Pre-Board Examination.
CS250 Cosmetology Instructional Internship (16,9,22) Prerequisites: Student Must Have Written Departmental Approval and Current Cosmetology License. This course is taught on a tutorial basis in an active school setting, giving the student experience in a large variety of training situations. Only one student is enrolled at a time, and he/she is expected to devote approximately 28 hours per week throughout the 18 week course. Emphasis will be on methods of presentation, record keeping, safety, regulations, and customer/student relations.
CRIMINAL JUSTICE

**CJ100 Introduction to Criminal Justice (3,3,0) Prerequisites: None**
This course provides the student with a broad overview of the history and scope of the American Criminal Justice System.

**CJ110 Introduction to Corrections (3,3,0) Prerequisites: None**
This course is designed for persons employed in or interested in a career within the broad field of correctional administration. This course will review where corrections in America originated, where it is today, where it seems to be going, and some of the issues which need to be resolved. Emphasis is to be placed on the multi-faceted approach to corrections in our contemporary society.

**CJ115 Stress Management for Correctional Officers (1,1,0) Prerequisites: None**
PENDING CURRICULUM COMMITTEE APPROVAL
This course focuses on the physical and psychological effects of a criminal justice career on the practitioner, as well as his/her family. A variety of stress management strategies and techniques will be discussed, and the student will be required to select and demonstrate those which he/she feels most appropriate for him/her.

**CJ120 Corrections Institutions/Facilities (3,3,0) Prerequisites: None**
This course provides the student with a concentrated overview of correctional institutions and facilities. It is designed primarily for students intending to pursue a career in the criminal justice system or for those already employed within the system. It has relevance to other students pursuing a social science orientation. The course explores federal, state, county, and local facilities, including maximum, close, medium, and minimum custody facilities. It addresses community facilities, co-educational facilities, and the safety and security requirements and considerations related to each. Constitutional and managerial issues are stressed. The course includes historical developments and philosophy, sociological concepts, definitions and concepts, and their application. The interplay of policy, procedures, management, law, and facility design is stressed.

**CJ125 Police Administration and Operations (3,3,0) Prerequisites: None**
This course is for students pursuing careers in the criminal justice system or for those already employed within the system. This course explores the evolution of administrative theory with special emphasis on its impact and application at the operational level of law enforcement agencies.

**CJ130 Criminal Investigation (3,3,0) Prerequisites: None**
This course includes 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.
CJ135  Report Writing for Line Officers (1,1,0) Prerequisites: None
This course provides the student with the skills needed to complete the
forms used to document prisoner misconduct and other significant events in
a criminal justice setting.

CJ210  American Criminal Law (3,3,0) Prerequisites: None
This course is for persons seeking employment in the criminal justice
system. Included are the historical development and philosophy of
criminal law, legal definitions, concepts, and their application to the
criminal justice system.

CJ220  Legal Issues in Corrections (3,3,0) Prerequisites: None
This course provides the student with a broad overview of legal issues
related to corrections in the United States. It is designed primarily for
students intending to pursue a career in the criminal justice system or
those already employed within the system. It has relevance to all
students pursuing a social science orientation. The course explores legal
conflicts arising from the rights of the accused, the convicted, society,
and those who work within the system. Constitutional limitations are
stressed, as is the impact of law on correctional practice. The course
includes historical developments and philosophy, as well as definitions,
concepts, and their applications.

CJ230  Juvenile Delinquency (3,3,0) Prerequisites: None
This course is designed for students interested in or already employed
within the criminal justice system. This introductory course includes:
theories of delinquency causation, examination of the family relationship
and juvenile delinquency, the juvenile justice system, and delinquency
prevention programs.

CJ240  Introduction to Security Systems (3,3,0) Prerequisites: None
This course is designed for persons employed in or interested in a career
within the broad field of public and private security administration

CJ250  Client Relations in Corrections (3,3,0) Prerequisites: None
This course is designed to acquaint the student with the principles of
human relations as they relate to the criminal offender. Topics to be
covered will include the meaning and function of culture, minorities,
discrimination, and affirmative action; attitude formation, human
relations skills, and professional responses to human behavior.

CJ260  Client Growth and Development (3,3,0) Prerequisites: None
This course is designed to acquaint the student with the conditions which
promote the growth and development of criminal offenders. The course will
differentiate between normal and criminal behavior; will trace the social,
psychological, and biological development of offenders; identify specific
problems related to offenders; and propose a set of intervention
strategies.
CJ290 Criminal Justice Practicum (5,0,20) Prerequisites: Approval of CJ Coordinator

This course is a planned program of internship, observations, study, and work in selected criminal justice agencies. It supplements previous classroom study with participation in criminal justice systems of the United States and foreign nations.
DATA PROCESSING

DP110 Introduction to Data Processing (3,2,2) Prerequisites: None
This course covers the fundamental concepts and applications of computers; the impact of the computer on human events and social institutions; the control, predictions, and implications of future computer developments. The logic of computer control using BASIC programming language will be introduced.

DP111 Computer Applications in Health Care (3,2,2) Prerequisites: None
The purpose of this course is to introduce nursing and allied health students to computer applications in health care. Emphasis of the course is on basic computer literacy skills and hospital applications of computers. The student will examine the use of computers in health care and the impact of technology on health care delivery. Topics in the course include computer hardware and software, computer applications in health care, future trends, and ethical issues. Lab experience is designed to provide the student with an opportunity to interact with a computer using various software packages.

DP112 Introduction to BASIC (1,1,0) Prerequisites: DP110, or student must have written departmental approval.
This is a BASIC language introduction. It is intended for students who have had no prior exposure to programming and may not feel quite ready to start right into the full effort of DP116. Only the very elementary statements of BASIC will be covered with some hands-on use of the microcomputers to give a first exposure to their use. Students who have completed DP110 prior to the Fall of 1987 should consider taking this course.

DP113 Introduction to the IBM PC and Compatible PC's (1,0,5,1) Prerequisites: None
This course provides a brief introduction to the use of the IBM or compatible machines using the current operating system software and an introduction to the use of application software on these machines.

DP115 Introduction to Computer Programming (3,2,2) Prerequisites: DP110, OE120, This is the first computer programming course. Microcomputers and the programming language "BASIC" are the primary tools. Included are programming concepts and problem-solving techniques, structured basic programming; files and file manipulation techniques, understanding and using built-in features and available software. Programming assignments will reflect personal, business, and scientific applications.
NOTE: THIS CLASS IS NO LONGER OFFERED

DP116 Microcomputers: Operating Systems and Applications (3,2,2)
Prerequisites: DP110 or student must have written departmental approval. This course will introduce the student to the operating systems used on today's microcomputers. The main emphasis will be on MS-DOS (Micro-Soft Disk Operating System), which is used on the IBM-PC and its compatibles. The student will also be introduced to some commercial application software, file management, report generation, word processing, and spreadsheets. The PFS series from Software Publishing Company will be used on both the Apple and IBM-PC.
DP121 Introduction to Computer Language/Fortran (3,2,1) Prerequisites: DP110. FORTRAN is a computer language used to communicate commands to a computer. Completion of the course will enable students to flowchart problems and then program this information as instructions for the computer. Topics include: write statement, read statement, format statement, do-loops, arrays, sub-routines, and addition I/O statements.

DP122 Introduction to Pascal (3,2,2) Prerequisites: DP110 or student must have written departmental approval. This course provides an elementary understanding of the principles and techniques of writing computer programs in PASCAL. Topics covered will include: problem solving, algorithm development, structured programming techniques, module design, and dynamic storage concepts.

DP215 Advanced Programming in BASIC (3,2,2) Prerequisites: DP110, DP122 or student must have written departmental approval. Advanced Programming in BASIC is a follow-up course to DP115. This course will cover additional and more in depth topics in programming in the BASIC language.

DP220 COBOL Programming (3,2,2) Prerequisites: DP110, DP115 or DP122 This course provides an elementary understanding of the principles and techniques of writing computer programs in COBOL. Features and capabilities of COBOL will be used in solving business-related problems. Topics covered will be: computer programming, flowcharting, data storage, and procedural study. (FORMERLY DP120)

DP225 RPG II Programming (3,2,2) Prerequisites: DP110, DP115 or DP122 RPG II Programming provides an elementary understanding of the principles and techniques of writing business-related programs in RPG II. The course will be heavily oriented to hands-on programming. Topics covered will be: program design, flowcharts/pseudocode, report generation, editing, file concepts and use, table processing, and other features of RPG II. (FORMERLY DP125)

DP230 Microcomputer Spreadsheets (3,2,2) Prerequisites: DP116 or student must have written departmental approval. An introduction to electronic spreadsheets using microcomputers. Popular spreadsheet applications programs available for use on microcomputers will be discussed including the concepts, use and implementation of a broad spectrum of problems.

DP235 Microcomputer Data Base Applications (3,2,2) Prerequisites: DP116. This course will introduce the student to the concepts of data base management and the application of a typical Data Base Management System to an organization's information needs utilizing microcomputers. The course will make extensive use of microcomputers in the laboratory with DBASE III software.
DP240  Systems Concepts/Design (3,3,0) Prerequisites: DP420.
Systems development methodology as applied to the analysis, design and implementation of manual and computerized systems. Topics include: the role of the System Analyst; system investigation; design of systems output, input, files, processing and controls; project management and implementation. Students will have the opportunity to participate in the analysis and design of a simulated business system.

DP290  Programming Project (3,1,4) Prerequisites: DP240, BA135, BA116.
A comprehensive laboratory project requiring the student to conduct a detailed analysis and implementation of a data processing application program or system.
ELECTRICITY/ELECTRONICS

EL100 Concepts in Electricity (3,2,2) Pre- or Corequisites: MA100.
The purpose of this course is to give a student a basic knowledge of
electrical components, AC and DC circuits, and electrical measuring
instruments. Other topics include schematic symbols, power, capacitance,
inductance, impedance, magnetism, electro-magnetism, transformers, and
motors. This course emphasizes a "hands-on" approach, with the use of
modern components and equipment.

EL101 *Basic Electricity (PROPOSED) (3,2,2) Prerequisites: Student must pass the
ASSET Numerical Skills Test, Co-Requisites: MA100.
This course introduces the student to electricity fundamentals, DC circuit
laws, magnetism and magnetic devices, and basic measurement techniques.
Elementary mathematical analysis techniques along with use of the
scientific calculator are included. Laboratory experiments will analyze
concepts covered in lecture, develop proper electrical measurement
techniques, and offer an introduction to soldering.

EL102 *Basic Electronics (PROPOSED) (3,2,2) Prerequisites: EL101, Corequisite:
MA104.
This course is a continuation of EL101 studying AC circuits and components
including capacitors, inductors and transformers. Basic circuit laws
discussed in EL101 are extended to AC. Characteristics of solid state
devices including operation of diodes and transistors are also included.
Laboratory experiments will analyze concepts covered in lecture.
Instrumentation includes oscilloscopes, signal generators, and frequency
counters.

EL110 Electronic Circuit Analysis I (3,2,2) Prerequisites: EL100, MA104.
Electronic Circuit Analysis is a course in the use of mathematics as a
tool in analyzing working and defective circuitry. Although primarily
lecture, some lab time is used for demonstrations and class assignments.

EL120 Electronic Devices (3,2,2) Prerequisites: EL110, Co-requisites: MA102.
The student will study many electrical and electronic components,
including inductors, capacitors, transformers, diodes, transistors, and
integrated circuits. Applications such as filters, resonant circuits, and
basic amplifier configurations will be used to reinforce the student's
knowledge.

EL141 Microprocessors I (3,2,1.5) Prerequisites: None
This course is an introduction to microcomputer structure and programming,
with the Motorola 6800 microprocessor used for examples. Topics include
number systems and codes, microcomputer basics, computer arithmetic, an
introduction to programming, and the 6800 microprocessor. Laboratory time
is provided for developing and executing machine language programs.

*Course descriptions are subject to change pending Curriculum Committee approval
EL180  **Electronic Test Equipment (3,2,2)**  Prerequisites: EL241
This course will explore the use of test equipment in electronic servicing. A variety of servicing examples will be used ranging from audio amplifiers to computer systems. Many practical troubleshooting hints will be offered, including the use of the human senses.

EL210  **Electronic Circuits (3,2,2)**  Pre- or Co-requisites: EL120
This course is a study of electronic component applications. This will cover basic power supplies, regulated power supplies, amplifiers, including: audio, RF, and power types, and some basic digital and pulse circuitry. Construction and analysis of these circuits will be included in the laboratory experiments, along with proper soldering and desoldering techniques.

EL230  **Digital Electronics (3,2,2)**  Prerequisites: EL120
This course is a study of techniques used in building and analyzing digital circuitry. Course topics include numbering and coding systems, digital integrated circuits, Boolean algebra, combinational and sequential logic circuits, digital counters, and computer fundamentals.

EL241  **Microprocessors II (1,5,1)**  Pre- or Co-requisites: EL141, EL230
This course continues EL141's discussion of microprocessors, with emphasis on circuits required in computer interfacing. Basic keyboard and display interfacing will be discussed in lecture and built in lab.

EL251  **Industrial Electrical Maintenance I (2,1,1)**  Prerequisites: EL100 or written departmental approval.
This course is for those who have an understanding of electrical basics and want to learn more about industrial motors and their controls. Included are a study of the National Electrical Code, wiring symbols and diagrams, motors, and basic control circuits.

EL252  **Industrial Electrical Maintenance II (2,1,1)**  Prerequisites: EL251
This course builds on knowledge and skills taught in EL251 and is for students having a good understanding of basic industrial motor circuits. Included is a study of the National Electric Code, timing circuits, speed control, reduced voltage starting and troubleshooting.

EL253  **Industrial Electrical Maintenance III (2,1,1)**  Prerequisites: EL252
This course will emphasize programmable controllers, their use, selection, setup, and servicing. This course is designed to give the electrician an understanding of the programmable controller, its logic functions, its installation, and troubleshooting.

EL254  **Industrial Electrical Maintenance IV (2,1,1)**  Prerequisites: EL253, or student must have written departmental approval.
This course builds on the student's 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.
**EL261** Electronic Communications (2,0,3) Prerequisites: EL210
Electronic Communications is a course in communications systems, such as AM and FM radio, television, and digital data links. Antenna systems are also included. This is an advanced course for those students interested in employment as a radio, television, or telephone technician.

**EL271** Microprocessor Interfacing (3,0,4) Prerequisites: EL241
This course is a continuation of the study of microprocessors. The course will be primarily concerned with standard peripheral devices, and how they are interfaced into a microprocessor system. In addition, more advanced microprocessor systems, such as the 6800, will be studied.

**EL281** Robotics and Industrial Electronics (3,0,4) Prerequisites: EL241
This course is a study of industrial robots, which includes their classification, operation, programming, and functional analysis. Additional topics include motors, sensors, and control systems.
Food Service Technology

FST100 Introduction to Food Service (3,3,0) Prerequisites: None
This course provides students with an introduction to the Food Service Industry. A study of the many divisions of the industry, their function and relationship to careers for the student will be covered. The course will provide information on each of the many types of food service and the employment potential found in each.

FST101 Food Service Sanitation (2,2,0) Prerequisites: None
This course provides an in depth analysis of guidelines for effective food service sanitation. The course will provide information and methods to help the food service manager apply sanitation procedures to food handling functions.

FST110 Food Production Skills—General (4,2,4) Prerequisites: FST101
This course presents the various food production methods geared toward quantity food production. The class will include basic terminology and special consideration of safety and sanitation in a "hands on" type experience. The course will include preparation of all types of meals.

FST120 Food Production Skills—Entree (4,2,4) Prerequisites: FST101
A continuation of FST110 with special emphasis on preparation of both luncheon and dinner entrees.

FST130 Meat and Portion Control (2,1,2) Prerequisites: FST101
This course provides a study of meat, its relationship to menu and how costs can affect menus. The student will be able to identify meat cuts and the methods of preparation for each. Special emphasis on meat quality and its significance to customer satisfaction and profitability will also be covered.

FST140 Nutrition and Menu Planning (3,3,0) Prerequisites: None
This course presents a study of normal nutrition and how food is absorbed into the body. Students will study menu planning with a special emphasis on nutritional value and menu attractiveness. Special projects in all areas of menu planning will be included to ensure students will gain experience that will assist them in the food service industry.

FST200 Equipment Design, Layout, Selection (2,1,2) Prerequisites: None
In this course students will study the equipment and facilities available to the food service industry. A student project will consist of the overall design and equipment layout for maximum productivity and the selection of the actual equipment based on desired function, quality and performance of a specific food service facility.
FST201  Food Service Management (3,3,0) Prerequisites: None
In this course students will study the manager's role in the operation of a food service establishment. The course will include both the study of people and their performance as well as management controls and their relationship to the successful management of a food service operation.

FST210  Food Production Skills—Bakery (4,2,4) Prerequisites: FST101
A continuation of FST110 and FST120, with special emphasis on preparation of all baked products, including cake and pastry decoration.

FST220  Food Production Skills Catalog (4,1,5) Prerequisites: FST101
In this course the student will study the types and methods of catering operations. Special emphasis will be placed upon obtaining practical experiences in the planning of menus and preparation of hors d'oeuvres and other items appropriate for various themes.

FST230  Food Purchasing (3,3,0) Prerequisites: None
In this course students will study the standards of quality and quantity in purchasing as applied to all phases of the food service operation. Students will gain experience in the proper selection of all types of food service equipment ranging from place settings in the dining room to a broiler in the kitchen. All types of food and grocery selection will also be covered. Particular emphasis will be placed on standardized procedures and specifications for each purchase.
FL120  Elementary French I (4,4,0) Prerequisites: None
Fundamental training in basic language skills stressing oral and written expression as well as aural comprehension. Open to students with no French background or one year of high school French. Students electing this class should plan to take FL121 second semester.

FL121  Elementary French II (4,4,0) Prerequisites: FL120
A continuation of Elementary French 120

FL130  Elementary Spanish I (4,4,0) Prerequisites: None
This is the first half of a two semester beginning Spanish course. This course is designed primarily around conversational approaches to the language, but does include instruction in the basics of Spanish grammar. Lectures and written exercises will supplement an emphasis on the oral recitation and classroom conversation. In addition, pertinent aspects of Hispanic culture will be examined.

FL131  Elementary Spanish II (4,4,0) Prerequisites: FL130
A continuation of Elementary Spanish 130.
HU100  Fundamentals of Music (3,3,0) Prerequisites: None
This course includes the development of the techniques necessary to the
understanding and knowledge of music fundamentals. Students shall have
the opportunity to develop basic skills in reading and writing music,
along with sight singing, ear training, rhythmic organization, and
keyboard familiarity.

HU101  Music Appreciation (3,3,0) Pre- or Co-requisites: HU100 recommended
An introduction to the various styles of music, this course is designed
to increase the student's understanding, awareness and enjoyment of music
through the development of proper listening habits. Class presentations
will include records and demonstrations.

HU110  Music in the Elementary Classroom (3,2,1) Prerequisites: None
This course is designed to increase the student's awareness of music
programs for the elementary grades. Creative experiences, use of
appropriate materials and methods pertinent to the elementary classroom,
and the development of music fundamentals is emphasized.

HU111  Teaching Drawing to Children (1,1,.5) Prerequisites: None
This is a basic drawing course for people interested in learning to draw
what they see. Topics covered are contour, light and shadow,
perspective, and proportions of the human figure. A method of
instruction appropriate for use with children or the adult beginner in
art is also taught.

HU112  Teaching Ceramics to Children (1,1,.5) Prerequisites: None
This is an introductory hands-on course in working with clay. Students
will learn many handbuilding techniques for making pottery and sculpture,
decorating and glazing techniques, and the loading and firing of electric
and sawdust kilns.

HU113  Teaching Sculpture to Children (1,1,.5) Prerequisites: None
This course provides instruction and practical experience in the creation
of various types of sculpture. Emphasis will be given to modeling,
carving, and assembling techniques using low cost materials suitable for
children or the adult beginner in art.

HU114  Teaching Painting to Children (1,1,.5) Prerequisites: None
This course provides instruction and practical experience in the use of
color, composition, and various painting media to create paintings.
Materials and techniques suitable for children or the adult beginner in
art are emphasized.

HU115  Teaching Printmaking to Children (1,1,.5) Prerequisites: None
This course provides instruction and practical experience in the use of
various printmaking media and techniques to create designs and prints.
Materials and techniques suitable for children or the adult beginner in
art are emphasized.
HU116  Art Materials and Methods—Studio (1, 5, 5) Prerequisites: None
This course will provide students with the opportunity to use various art materials and techniques to make art objects. Films and examples will be shown and demonstrations will be given by the instructor when new ways of working are introduced.

HU119  Teaching Art Appreciation to Children (1,1,0) Prerequisites: None
Topics covered in this course will include lecture/discussion of works of art using prints or actual art objects, experiments involving perception and the elements and principles of design, and demonstrations of the methods and materials used by artists to create art forms.

HU120  Introduction to Art (2,1,2) Prerequisites: None
This course provides the student who has very little background in art with the basic information about color, design, composition, and the use of art materials and techniques needed for courses in drawing, painting, and ceramics.

HU121  Sketching (2,1,1;25) Prerequisites: None
This is a course in basic free-hand drawing techniques including shading, perspective and proportions. Students will learn to accurately sketch a variety of three-dimensional forms. Emphasis will be placed on using the sketch as a method of communication.

HU122  Drawing I (3,1,3) Prerequisites: None
This course includes instruction in basic drawing techniques including shading, perspective and the proportions of the human face and figure. Studio work will provide the student with drawing experiences using a variety of subjects and materials.

HU123  Drawing II (3,1,3) Prerequisites: None
This course will further develop the basic traditional drawing skills already acquired in beginning drawing. Students will use a variety of materials to draw models in the studio.

HU124  Lettering & Calligraphy (3,2,2) Prerequisites: None
An introductory course in typography. This course will present the history of typestyles, their classification and identification. Designing lettering for specific purposes and indicating type of advertising layouts will be discussed and practiced. The course will include an introduction to calligraphy.

HU125  Painting I (3,1,3) Studio, Prerequisites: None
This 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.

HU126  Painting II (3,1,3) Studio, Prerequisites: HU125
This course places emphasis on composition and color theory.

HU130  Ceramics I (3,1,3) Studio, Prerequisites: None
This 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.
Ceramics II (3,1,3) Studio, Prerequisites: HU130
This course places emphasis on further development of hand built forms or learning the basic techniques of throwing on the potter's wheel and exploring different decorating and glazing techniques.

Beginning Photography (3,2,2) Prerequisites: None
This course is an introduction to basic photographic techniques which include camera use, developing, printing, enlarging, and matting of black and white photographs.

Advanced Black & White Photography (3,2,2) Prerequisites: HU150 or student must have written departmental approval.
This course is a continuation of the basic black and white course to help expand the elementary principles and skills learned. Methods of manipulating the finished image, such as toning, will be learned. Techniques of retouching will be explored and practiced. This is a more in depth look at the effects of exposure and development on black and white films.

Special Ensemble I (1,0,1) Prerequisites: None
Ensemble groups are appropriate for musicians who enjoy performing in small select vocal ensembles. Participants will be selected after successfully auditioning with the music director. Each ensemble will meet approximately twice a week and the rehearsal schedule will be arranged sometime after the first week of each semester. These ensembles may include women's, men's and/or mixed singing groups.

Special Ensemble II (1,0,2) Prerequisites: None
This course is a continuation of HU185.

Choir I (1,0,2) Prerequisites: None
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. Opportunity is also provided to perform with small vocal ensembles whose members are selected from choir personnel.

Choir II (1,0,2) Prerequisites: None
This course is a continuation of HU191.

Jazz Band I (1,0,2) Prerequisites: None
This group is made up of instrumentalists having previous band experience. The class offers instrumental musicians the opportunity to continue their education on their particular instrument in the jazz medium. The jazz band performs at several campus and community events throughout the academic year.

Jazz Band II (1,0,2) Prerequisites: None
This course is a continuation of HU195.
HU200 Humanities I (4,4,0) Prerequisites: None
The purpose of this course is to develop the student's understanding of the artistic, literary and philosophical nature of man. Viewed historically, selected topics integrate material from the fields of art, literature, music, philosophy and religion.

HU201 Humanities II (4,4,0) Prerequisites: None
This course is a continuation of HU200. Completion of HU200 before enrolling in HU201 is recommended but not required. Humanities II places emphasis on the modern historical development of thought in art, literature, music, philosophy, and religion.

HU220 Introduction to Philosophy (3,3,0) Prerequisites: None
This course is designed to acquaint the student with some fundamental questions concerning the nature of man and the way in which the most profound thinkers of the past and present have dealt with those questions. Though not a prerequisite, the completion of HU200 before enrolling in Introduction to Philosophy is strongly recommended.

HU222 Bioethics (3,3,0) Prerequisites: None
This course is designed for the study of some of the major ethical theories and their relevance to the decision-making process in the biologically or health-care related fields. Topics to be included in this course are issues related to: 1) conception/birth, 2) life/death, and 3) patient's or individual's rights, etc.

HU225 Art for the Elementary Teacher-Lecture and Studio (2,1,2)
Prerequisites: None
This course combines instruction in the practice and philosophy of teaching arts and crafts to children, with studio work in a variety of materials and techniques suitable for their use.

HU227 Painting III (3,1,3) Studio, Prerequisites: HU126
This course places emphasis on exploration of traditional or experimental painting techniques.

HU228 Painting IV (3,1,3) Studio, Prerequisites: HU227
This course places emphasis on development of individual expression.

HU230 Watercolor Painting (2,5,1.5) Prerequisites: None
This course includes basic instruction in color mixing and the techniques of painting with watercolor.

HU232 Ceramics III (3,1,3) Studio, Prerequisites: HU131

HU233 Ceramics IV (3,1,3) Studio, Prerequisites: HU232

HU240 American Art Seminar (1,0,1) Prerequisites: None
In this course, students will read and report orally on major American artists and movements. The artists' works will be examined critically in class. Subsequent class discussions will explore the derivations, significances, meaning, and trends evident in their artistic expressions.
American Art Seminar II (1,1,0) Prerequisites: None
In this course students will read and report orally on major American artists and movements of the Twentieth Century. The artists' works will be examined critically in class. Subsequent class discussions will explore the significances, meanings, and trends evident in their artistic expressions.

French Impressionism (1,1,0) Prerequisites: None
This course offers an opportunity to explore the artists, techniques, and environments of the Impressionist movement in painting. It took place in France, one hundred years ago, and is one of the most beautiful and popular periods in art history.

Color Photography (3,2,2) Prerequisites: HU150, or student must have written departmental approval.
This course is a basic color photography experience. Techniques of film development, color printing, and color balance of color prints will be explored.

Special Ensemble III (1,0,2) Prerequisites: HU185
This course is a continuation of HU186.

Special Ensemble IV (1,0,2) Prerequisites: HU186

Choir III (1,0,2) Prerequisites: HU191
This course is a continuation of HU192.

Choir IV (1,0,2) Prerequisites: HU192
This course is a continuation of HU293.

Jazz Band III (1,0,2) Prerequisites: HU195
This course is a continuation of HU196.

Jazz Band IV (1,0,2) Prerequisites: HU196
This course is a continuation of HU297.
INDUSTRIAL TECHNOLOGY

IT100 Machine Tool Theory (2,2.25,0) Prerequisites: Student Must Have Written Departmental Approval.
This is a lecture course consisting of the definition, history, operation and application of the various tool room machines. Emphasis is placed on specific and special operations such as threading, taper turning, indexing, electro-chemical machining, and cutting tool geometry. Other non-traditional machining will be mentioned. The machinist handbook will be reviewed and used throughout the course as a reference for information needed in the operation of machine tools.

IT102 Basic CNC Operation (2,2.25,0) Prerequisites: Student Must Have Written Departmental Approval.
This course provides a hands-on experience in programming Computer Numerical Control systems used with machine tools. Topics covered include: circular and linear interpolation, absolute programming, Preparatory (G) and Miscellaneous (M) functions. Students will write their own programs and transfer them from the computer to the CNC machine and make the parts.

IT104 Statistical Process Control (1,1,0) Prerequisites: None
Commonly known as SPC, this course will include a brief history of SPC; a few of the statistical concepts which support it; an explanation of why it works; and why it is becoming more popular. Emphasis will be given to sampling methods, control charts, case studies, and tips for getting SPC started in the plant environment.

IT105 Statistical Problem Solving (1,1,0) Prerequisites: IT104, or Student Must Have Written Departmental Approval
This course will include a brief refresher on the basic statistical concepts learned in IT104; a more indepth explanation of the relationship between process variation and process problems; includes advanced application toward a better understanding of machine and process capability in terms of improvement through reductions in the common causes of variation. Emphasis will be applied to problem-solving techniques for correcting process nonconformities.

IT120 Plastics Technology (2,2.25,0) Prerequisites: None
This course explores several types, characteristics and uses of modern plastics. It includes demonstrations of handling, forming, and blending techniques.

IT121 Plastic Injection Molding (2,2,0) Prerequisites: None
Students learn to properly set-up, operate, adjust, and make minor repairs to an injection molding machine, through both classroom and hands-on experience. They also learn about the common molding materials, the major characteristic of each, and the effects of recipe changes.
Metallurgy and Heat Treatment (2,2.25,0) Prerequisites: None
Studied in this course are 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 non-ferrous alloys, study of properties of steel, surface treatments, powder metallurgy, and classifications of steels. Stress, strain, and strength of materials will be included throughout the course.

Industrial Safety and First Aid (2,2.25,0) Prerequisites: None
This course covers basic industrial safety practices, and includes samples of lessons learned the hard way. Personal and plant safety topics include: fire, electrical, moving machinery, lifting, vision and hearing, and overhead work. An eight hour basic first-aid section is taught by a certified Red Cross instructor, and successful students are eligible for Red Cross Certification.

Basic Machine Operations (3,2,2) Prerequisites: None
This course covers the theory and practice in the operation of typical machine tools as well as the use of bench tools and layout equipment. The course is designed to provide practical knowledge of machine processes rather than machine shop skills.

Advanced Machine Operations (3,2,2) Prerequisites: IT220
This course covers advanced operations on grinders, mills, presses and lathes. Students will set up and perform machining operations using typical machine shop equipment. They will be assigned special projects to insure a full understanding of the operation of this equipment.

Basic Fluid Power (3,2,2) Prerequisites: None
The purpose of this course is to provide you with a basic understanding of fluid power. Topics include hydraulic principles, cylinders, pumps, valves, reservoirs, and accessories and fluids and pneumatic principles. In addition, hydraulic and pneumatic symbols and formulas will be stressed. Laboratory work will include demonstrations and a series of forty-three projects using specialized fluid power trainers.

Advanced Hydraulics (3,2,2) Prerequisites: IT253
The purpose of this course is to provide the student with additional training in advanced hydraulics. Topics include hydraulic motors, specialized hydraulic valves, servo systems accumulators, flow meters, closed loop systems, plumbing and sealing services, system design, and troubleshooting. In addition, more time will be spent on hydraulic symbols and formulas. Laboratory work will include demonstrations and a series of twenty projects using specialized hydraulic trainers.

Manufacturing Processes (2,2,0) Prerequisites: None
This is a study of the modern methods and processes used in manufacturing a product. Individual and group tours of industry, viewing several video tapes, and a survey of technical literature comprise the basis for this course.
IT270 Industrial Quality Control (2,2.25,0) Prerequisites: None
This course defines the changing quality concepts of modern-day industry; further defines quality organization, quality costs, data collection, process control, customer relations, and product reliability. It encompasses theory and practical application of Statistical Process Control (SPC).
LANGUAGES ARTS

LA100 Freshman English I (3,3,0) Prerequisites: None
This course includes college-level writing instruction, with emphasis on
exposition, argumentation, research techniques, grammar, and punctuation.

LA101 Freshman English II (3,3,0) Prerequisites: LA100, or student must have
written departmental approval.
This course is an extension of Freshman English I, with emphasis on
exposition, argumentation, research techniques, grammar, and punctuation.

LA160 Journalism (3,3,0) Prerequisites: None
This is an introduction course which includes the basic techniques in
writing, the principles of effective news writing, a survey of newsroom
organization and practical experience provided through laboratory
sessions. (Normally offered only at the prison extensions.)

LA161 Journalism Lab I (1,0,2) Prerequisites: None
This course provides practical experience on a newspaper.

LA162 Journalism Lab II (1,0,2) Prerequisites: None
This course provides advanced practical experience on a newspaper.

LA200 American Thought and Literature I (3,3,0) Prerequisites: None
This course introduces the student to American literature through the
"thematic" approach. The student, while required to know the traditional
historical framework, actually reads modern literature as well as the
older literature, guiding his/her reading according to the recurring
themes, problems, and "continuing causes" which have concerned Americans
from the beginning to the present day.

LA201 American Thought and Literature II (3,3,0) Prerequisites: None
This is a survey of American literature arranged according to thematic
concerns (recurring themes, problems, "causes"), which emphasizes writing
of the twentieth century.

LA210 Speech (3,2,1) Prerequisites: None
This is an introductory course in public speaking, designed mainly to
provide practice in speaking with interest and purpose before an audience.
Through presenting a series of brief talks before peers, the student will
become familiar with the basic principles of speech organization,
preparation, and delivery.

LA212 Oral Interpretation (3,2,1) Prerequisites: None
Through analyzing and reading aloud selected prose, poetry, and drama,
students will improve their own understanding of these works and increase
their ability to communicate with others. The course will relate
interpretative reading to other areas of speech: public address,
television, theater, speech improvement, and the teaching of literature.
LA220  English Literature from the Beginning to 1798 (3,3,0) Prerequisites: None
This is a systematic study of English literature which stresses the principal authors and their works. Reading and discussion will include representative writings of the period from the beginning to the end of the eighteenth century and will also survey current critical approaches.

LA221  English Literature from 1798 to Present (3,3,0) Prerequisites: None
This is a systematic study of English literature which emphasizes the principal authors of the nineteenth and twentieth centuries. Readings and discussion will include representative works and will also review current critical attitudes.

LA230  Short Story (3,3,0) Prerequisites: None
This is a study of the strengths and limitations of the short story, which the student learns to read with delight and understanding.

LA235  Children's Literature (3,3,0) Prerequisites: None
This 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.

NOTE: FOR ONE-CREDIT MODULES OF THIS CHILDREN'S LITERATURE COURSE, SEE LISTINGS UNDER LA225.

LA240  The Novel (3,3,0) Prerequisites: None
This is a study of the novel with dual intent: to increase the benefits one receives from reading through systematic discussion of each novel; and to better understand how the "more than casual" reader approaches fiction through study of the several schools of literary criticism.

LA250  Creative Writing (3,1,2) Prerequisites: None
The purpose of this course is to allow students to sharpen their ability to use the English language in expressing creative thought in any or all of the traditional genres. The student will be encouraged to greater achievement in types of writing already tried and will be expected to attempt work in new areas. A workshop atmosphere with common exchange of ideas will prevail.

LA260  Drama (3,3,0) Prerequisites: None
This course is an introduction to drama as a literary form and requires the student to read representative writings of the period from classical times to present.

LA261  Drama—As a Performing Art (3,1,2) Prerequisites: None
Students are involved in the producing, acting, staging, and directing of plays.

LA270  Poetry (3,3,0) Prerequisites: None
This course compares contemporary and classic examples of poetry to historically durable examples of structure and content.
LA280 A Survey of Black American Literature (3,3,0) Prerequisites: None
This is a chronological survey of Black American writing from 1760 to the present with emphasis on twentieth century examples of poetry, fiction, drama, and autobiography.

THE FOLLOWING LA295 COURSES ARE 1 CREDIT HOUR MODULES OF CHILDREN'S LITERATURE. ANY THREE OF THESE MODULES MAY BE CONVERTED INTO CREDIT FOR CHILDREN'S LITERATURE (LA235). THE STUDENT WISHING TO MAKE THIS CONVERSION MUST CONTACT THE REGISTRAR TO DO SO.

LA295 Children's Literature: The Younger Child, Preschool - 8 Years (1,1,0)
A one-credit module of Children's Literature (see LA235)

LA295 Children's Literature: The Middle (9-12) Years (1,1,0)
A one-credit module of Children's Literature (see LA235)

LA295 Children's Literature: Young Adults (1,1,0)
A one-credit module of Children's Literature (see LA235)

LA295 Children's Literature: Fairy Tales (1,1,0)
A one-credit module of Children's Literature (see LA235)
**MATHEMATICS**

**MA100 Elementary Algebra (3,3,0)** Prerequisites: Passing score on ASSET Numerical Skills Test.
This course is a review of the properties of the basic number systems, using the tools of beginning algebra. Additional topics include first degree equations and inequalities, special products and factoring, graphs and linear systems, radicals and quadratic equations.

**MA102 Trigonometry (3,3,0)** Prerequisites: MA104, passing score on ASSET. Intermediate Algebra Test or written departmental approval. The right triangle is studied to introduce the trigonometric functions. These functions are also studied as circular functions of real numbers. Other topics include graphing, identities, inverse functions, Law of Sines, Law of Cosines, complex numbers, and exponential functions.

**MA104 Intermediate Algebra (3,3,0)** Prerequisites: MA100, passing score on ASSET Elementary Algebra Test, or written departmental approval. This course will provide students with the algebraic skills, including manipulation and proofs, necessary for the study of college algebra and analytic geometry. Topics covered include the usual topics through quadratics plus the exponential and logarithmic functions, the binomial theorem, sequences, systems of equations, complex numbers, permutations and combinations with an introduction to probability.

**MA110 Shop Mathematics I (2 credit hours, 36 clock hours)** Prerequisites: Passing score on ASSET Numerical Skills Test. This course covers the arithmetic of common fractions, decimals, percents, square roots, measurement and the use of simple formulas. CHANGES PENDING

**MA111 Shop Mathematics II (2 credit hours, 36 clock hours)** Prerequisites: MA110. The arithmetic of precision measuring instruments, applied arithmetic, applied geometry, geometric constructions, and the use of the calculator are covered in this course. CHANGES PENDING.

**MA112 Shop Mathematics III (2 credit hours, 36 clock hours)** Prerequisites: MA111.
Solid geometric applications, shop trigonometry, and an introduction to the use of computers in design and machining are covered in this course. CHANGES PENDING

**MA116 Managerial Mathematics (3,3,0)** Prerequisites: MA104, passing score on ASSET Intermediate Algebra Test, or written departmental approval. This is a study of mathematics relating to various business situations involving matrix algebra, sets, probability, linear programming and statistics.

**MA151 Math for Elementary Teachers (3,3,0)** Prerequisites: MA100, passing score on ASSET Elementary Algebra Test, or written departmental approval. This course will provide the elementary teacher with the necessary background to teach mathematics in the elementary school. Such subjects as the origin of systems of numeration, sets, systems of whole numbers, bases other than 10, systems of integers, and rational and real numbers will be discussed.
MA159  College Algebra (3,3,0) Pre or Co-requisites: MA102, or written departmental approval. Topics include basic algebraic concepts, linear and quadratic equations and inequalities (singular and systems), relations and functions, matrices and determinants, exponential and logarithmic functions, complex numbers, polynomials and rational functions, second degree equations, sequences, series, mathematical induction, combinatorics and probability.

MA160  Analytic Geometry (3,3,0) Prerequisites: MA159 or written departmental approval. This course covers the straight line, the circle, conics, algebraic curves, transcendental curves, parametric equations, planes and lines, and quadratic surfaces.

MA190  Elementary Statistics (3,3,0) Prerequisites: MA100, passing score on ASSET Elementary Algebra Test, or written departmental approval. This course introduces students to basic statistical techniques. Topics include mean, standard deviation, frequency, probability, binomial distribution, normal curve, sample means, confidence limits, hypothesis testing, chi-square, linear correlation, and regression.

MA250  Calculus I (4,4,0) Prerequisites: MA160 or written departmental approval. This course covers functions and continuity, limits, differentiation, integration, definite integrals, and inverse functions.

MA251  Calculus II (4,4,0) Prerequisites: MA250. This course covers definite integral applications, integration techniques, L'Hopital's Rule, improper integrals, sequences and series. Also included are conics, plane curves, parametric equations, and polar coordinates.
NATURAL SCIENCES

NS100 Biological Science (4,3,2) Prerequisites: None
This course provides a basic general education in some major biological sciences (botany, ecology, genetics, and zoology) and also a basis for the individual to relate to his total environment. It presents an opportunity for the student to evaluate his own interest and potential in the biological sciences.

NS101 Physical Science (4,3,2) Prerequisites: None
The purpose of this course is to provide basic general education in the physical science areas of physics and chemistry so the student will be better able to understand and evaluate the results of scientific and technological achievement and their impact upon society. It also provides a basis for the student to evaluate his/her own interest and potential in the physical sciences.

The science department recommends that students who have weak high school science backgrounds or who have been out of school for several years should take NS100-101 sequence before enrolling in any other college science classes. Other students should select from the biological and physical science courses listed below in order to fulfill the science requirements at Montcalm Community College. (NS102, NS108, and NS120 are not lab courses and therefore will not fulfill the science requirements for an associate in arts and sciences.)

NS102 Physical Geography/Earth Science (3,3,0) Prerequisites: None
A study of the earth-sun relationship, climatic factors on the earth, the geographic grid, land forms, rocks, and minerals. An opportunity will also be provided to gain skills in map reading. The course will also include the study of the earth's natural resources and man's impact on these resources.

NS103 Anatomy and Physiology I (4,3,2) Prerequisites: NS100, or the student must have written departmental approval.
This course introduces students to the basic structural and functional aspects of the human body. The contribution of each body system to the total well-being of the individual, as well as the interdependence of the body systems is emphasized. Specific topics studied include: anatomical terminology, chemistry, cells, tissues, cellular metabolism, skeletal system, muscular system, digestive system, and nervous system. Laboratory exercises include dissection and physiological experiments pertinent to the topics covered.

NS105 Introductory Chemistry (4,3,2) Prerequisites: None
This course is for students entering nursing, dental hygiene, home economics, other allied health science fields and for non-science majors. Students will become familiar with basic principles of chemistry as applied to the health sciences and with nuclear chemistry, organic chemistry, and biochemistry. (Students working toward a bachelor's degree should take the two-semester college chemistry course—NS220-NS221.)
NS108 Problem-Solving (3,3,0) Prerequisites: None
This course in general problem-solving skills deals with the techniques used in solving a variety of problems that occur in all aspects of college courses and in all walks of life. This is an elementary course which assumes no prior knowledge beyond basic reading, writing, and arithmetic skills.

NS110 Botany (4,3,2) Prerequisites: NS100 or student must have written departmental approval.
This is a survey of the plant kingdom from the simplest to the more complex. Students will study plant structure, classification, and ecological relationships. Students will have an opportunity to submit a collection from the local flora and special attention will be given to taxonomic principles and collection procedures along with the use of keys. The major portion of class time is spent out-of-doors.

NS111 Introduction to College Physics I (3,2,2) Prerequisites: MA100
This is the study of forces, motion, energy, properties of materials and sound.

NS112 Introduction to College Physics II (3,2,2) Prerequisites: NS111
Thermodynamics, electricity and magnetism, optics and modern physics will be explored.

NS115 Zoology (4,3,2) Prerequisites: NS100 or student must have written departmental approval.
This is a general survey of the animal kingdom including comparative studies of the structure, function, and behavior of representatives of animal groups. Laboratory work includes dissection of representative animals from each phylum.

NS120 Environmental Geography (3,3,0) Prerequisites: None
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.

NS201 Microbiology (4,3,2) Prerequisites: NS100 and NS101, or the student must have written departmental approval of equivalent biology and chemistry background.
This is a study of the biology of various micro-organisms, including viruses, bacteria, fungi, algae, and protozoa. The interactions of certain pathogenic micro-organisms and their animal, human and plant hosts are studied as well as microbial ecological relationships in general.
NS203 **Anatomy and Physiology II** (4,3,2) Prerequisites: NS103, and NS105, or NS120, or the equivalents or student must have written departmental approval. (NS103 "Equivalent" must be a laboratory course.)

This course is a continuation of NS103. Specific topics studied include: continuation of the nervous system, integumentary system, somatic senses, endocrine system, respiratory system, blood, cardiovascular systems, lymphatic system, urinary system, water and electrolyte balance, reproductive system, and human genetics. Laboratory exercises are performed throughout the semester as well as clinical applications and pathophysiology when appropriate. Emphasis continues to be on homeostatic mechanisms pertinent to lecture topics.

NS208 **Nature Study** (4,2,3) Prerequisites: None

This is a field course which provides students with a background of information enabling them to go into the out-of-doors with a degree of confidence knowing they will be able to recognize and know something about many of the common plants and animals found in the local area. The laboratory used is the out-of-doors and the purpose of the course is to aid students to better understand the environment in which they find themselves.

NS220 **College Chemistry I** (4,4,2) Prerequisites: NS101, transferable high school chemistry, or the student must have written departmental approval.

Fundamental theories, principles, and problems of chemistry will be emphasized.

NS221 **College Chemistry II** (4,4,2) Prerequisites: NS220 or NS105 with B+ or better grade.

This course is a continuation of NS220. Organic chemistry and biochemistry will be introduced and the last five weeks will cover qualitative analysis.

NS230 **Introductory Physics I** (4,3,2) Prerequisites: Student must have written departmental approval.

This course is for students interested in the life sciences, e.g. biology, medical technology, pre-medicine, pre-dentistry, etc. The course covers concepts of light, force and motion, and energy as they apply to biological mechanism and instrumentation.

NS231 **Introductory Physics II** (4,3,2) Prerequisites: NS230

This course is a continuation of NS230 and covers fluids, elasticity of matter and membranes, sound, electromagnetism, quantum theory, and radioactivity.
NUR102 Basic Nursing Skills I (7,3,11) Prerequisites: Admission to Nursing Program.
This course is designed to provide students with the basic knowledge and skills essential for efficient bedside nursing. The student is expected to begin the process of applying nursing theory to meet the basic needs of the patient. Course includes simulated lab experience and actual clinical experience.

NUR104 Basic Nursing Skills II (12,1,22) Prerequisites: Successful progression from first semester.
This course is designed to assist the student in performing more in depth nursing procedures than in NUR102. Skills of a more technical nature will be emphasized. The goal will be to develop a concept of the total nursing process. Students will care for geriatric, medical-surgical, pediatric and obstetric patients.

NUR110 Food in Health and Disease (2,2,0) Prerequisites: Admission to Nursing Program.
Basic nutrition facts are presented with their relationship to health. The student becomes familiar with food nutrients, good nutrition, and variations of diet therapy.

NUR117 Clinical Practicum III (6,0,12) Prerequisites: Successful progression from second semester.
This course is the final clinical course in Level I of the nursing program. The student will draw from previous clinical experience in applying the nursing process. Each student will participate in the total process of administration of drugs to patients.

NUR120 Concepts of Interpersonal Relationships (2,2,0) Prerequisites: Admission to Nursing Program.
The person, as a nurse and as a patient, is studied in this course to help students identify and meet emotional needs. Theories of communication are introduced and communication skills are practiced. At the completion of this course, the student will be able to identify basic dynamics of human behavior and begin to utilize the tools of therapeutic communication.

NUR125 Nursing Seminar (1,1,0) Prerequisites: Successful progression from second semester.
Current issues and trends in nursing related to education, nurse practice acts, and professional organizations will be the focus of this course.
NUR145 Maternal-Child Nursing I (3,3,0) Prerequisites: Successful progression from first semester.
This course is a study of the psychologic and physiologic bases of maternity care. The client and her significant others' needs for support during ante, intra, and post-partum periods are emphasized. Parental-infant bonding and education for childbirth and parenting are stressed topics. Complications during pregnancy and in the newborn period are related to the processes underlying these problems. The class also includes the study of health care problems of children, the proper assessment for each, and the identification of appropriate nursing measures.

NUR150 Introduction to Medical-Surgical Nursing (2,2,0) Prerequisites: Admission to Nursing Program.
This introductory course in medical-surgical nursing presents the causes and effects of disease, body defenses, and prevention of disease. Common specific, long-term illnesses are discussed, with appropriate nursing actions.

NUR151 Medical-Surgical Nursing II (3,3,0) Prerequisites: Successful progression from first semester.
This course presents the more common medical and surgical conditions, and the treatment involved in providing nursing care. The course is intended to present the concept of assessing and meeting the total needs of the patient including the patient's return to a normal functional life.

NUR152 Medical-Surgical Nursing III (1,1,0) Prerequisites: Successful progression from second semester.
A continuation and review of the previous Medical-Surgical Nursing courses.

NUR161 Introduction to Pharmacology I (1,1,0) Prerequisites: Admission to the Nursing Program.
This course introduces basic principles of pharmacology, safety, and dosage calculation as related to the administration of medications.

NUR162 Pharmacology II (1,1,0) Prerequisites: Successful progression from first semester.
This course presents information on medications, according to their classifications necessary for the nurse to know in order to utilize the nursing process in caring for patients.

NUR200 Role Transition (2,2,0) Prerequisites: Acceptance to the second year of the nursing program.
This course is designed to facilitate students' adaptation to the associate degree nurse role. The focus will be on utilization of the nursing process, assessments, nursing diagnoses and writing nursing care plans.
NUR225 Leadership Role in Nursing (3,1,4) Prerequisites: Successful progression from second year, second semester. This course was designed to assist the student, within the framework of the nursing process, to develop professional leadership skills, to delegate appropriate tasks to others, to set priorities in nursing practice, and to further develop independent accountability.

NUR245 Maternal-Child Nursing II (6,2,8) Prerequisites: Successful progression from second year, first semester. This course is a study in more detail than NUR145 of the physiologic and psychologic bases of maternity care. Parental-infant bonding and education for childbirth and parenting continue to be stressed. The high-risk mother and infant problems with necessary treatments, including nursing care, are presented. Embryology and genetic problems are considered.

NUR251 Advanced Medical-Surgical Nursing (10,4,12) Prerequisites: Admission to second year of the Nursing Program. Using the nursing process in giving care to adults who are acutely ill or have multiple health problems is the focus of this lecture/clinical course. Nursing intervention in assisting the client and family in their adaptive responses to illness and stress is discussed. Emphasis is placed on the nurse's role in disease prevention, health maintenance, and teaching. Information is designed to build upon the theory learned in all other prerequisite courses and will enable the student to apply previously learned knowledge and skills.

NUR255 Community Mental Health (6,2,8) Prerequisites: Successful progression from second year, first semester. This course will introduce the student to man's psycho-social adaptation to stressors in his environment. Recent developments in treatment modalities, such as family therapy, behavior modifications, and reality orientation, will be presented. The nurse, using nursing process to work with patients with varying degrees of dysfunction in a wide variety of settings, will be discussed. She/he will work with clients in a mental health center, day care center, substance abuse center, and/or a psychiatric hospital setting. The content is focused on helping the student enhance her/his understanding of human behavior during both sickness and health, and to acquire skill in interpersonal relationships.
FM281 Basic Concepts of Pharmacology and the Administration of Medicine (4,4,2)
Prerequisites: None (Open to Licensed Practical Nurses or those who are eligible to write licensure exam.)
This course offers advanced instruction in the field of pharmacology and safety factors essential to dosage and drug administration. The course is offered with the approval of the National Association for Practical Nurse Education and Service, Inc. (NAPNES). The student must take a Pharmacology test and achieve on this national final test a specified percentile to be issued a certificate from NAPNES. Thirty-two (32) hours of supervised clinical practicum will be arranged with the student's employer* so that practical application of classroom instruction will be experienced (66 contact hours of instruction, 32 clock hours of clinical practicum arranged).

*Students must be employed to fulfill the requirements of this course.
OFFICE EDUCATION

OE100 Beginning Typing (3,2,2) Prerequisites: None
This is an introduction to and a mastery of the typewriter keyboard. Personal and business letters, elementary tabulation, simple outlines, and manuscript writing are included.

OE101 Intermediate Typing (3,0,4) Prerequisites: OE100 or written departmental approval
This is a course in the writing of business letters with practice in proofreading, tabulation, special communication forms, reports, and application/employment procedures. Open-lab course.

OE102 Machine Shorthand (4,3,2) Prerequisites: OE100
This is a course which introduces the theory and operation of the Stenograph Shorthand Machine. This course is designed to develop a knowledge of stenographs, computer-compatible theory, machine dexterity, fluent reading ability and the ability to take dictation.

OE103 Shorthand I (4,4,1) Prerequisites: OE100
This is a course in the elementary principles of Gregg Shorthand.

OE104 Shorthand II (4,3,2) Prerequisites: OE103
This course includes intensive training in theory of shorthand, the development of shorthand outlines, and the ability to take new-matter dictation.

OE105 Refresher Course in Gregg Shorthand (2,2,1) Prerequisites: OE103 or written departmental approval
This course is designed for the student who needs review in the theory of Gregg shorthand. Emphasis is placed on basic alphabetic principles, word beginnings and endings, blends, brief forms, and phrases. The student will also take dictation and transcribe.

OE120 Business Mathematics (3,3,0) Prerequisites: None
This course reviews fundamental arithmetic processes and their business and consumer applications, and includes cash and trade discounts, markups, depreciation, inventory, valuation, interest calculations, payroll deduction, metric system, statistics, and probability.

OE129 Business Communications I (3,3,0) Prerequisites: OE100
Basic communications skills are developed through a review of language structure. Attention is given to grammar, English for business use, vocabulary, punctuation, capitalization, and numbers.

OE130 Business Communications II (3,3,0) Prerequisites: OE129
This is a study of effective correspondence in business.
OE150 Typewriting Improvement (PROPOSED) (1,1,5,0) Prerequisites: OE100
This course is designed for the student wishing to improve typewriting speed and accuracy skills. It includes pretesting, diagnosing problem areas, typing extensive drills, and posttesting.

OE175 Records Management (3,0,4) Prerequisites: OE100
This course presents the principles of the alphabetic, numeric, geographic, and subject systems of records management, as well as records maintenance, decision-making, and career opportunities in the field of records management. Open-lab course.

OE202 Advanced Typing (3,0,4) Prerequisites: OE101 or written departmental approval
This course presents continued speed-building techniques, advanced production typewriting techniques, skill in business letters, tabulations, manuscript writing, legal documents, and business forms. Open-lab course.

OE203 Advanced Shorthand (4,0,4) Prerequisites: OE101, OE104
Further development of the ability to write new-matter dictation with increasing emphasis on speed and accuracy in transcription. Open-lab course.

OE205 Legal Terminology and Transcription (3,0,4) Prerequisites: OE101
This is a study of legal terminology as transcription skills are developed. This course will help the student develop a marketable skill in the use of office transcribing machines. Client and court documents will be prepared. Open-lab course.

OE206 Legal Office Procedures (3,0,4) Prerequisites: OE101, OE206
This is a study of the duties and responsibilities of the legal secretary. The student will complete assignments which include such diverse items as general office duties, non-court documents, and court documents. Open lab course.

OE207 Medical Terminology (3,0,4) Prerequisites: None
This is a study of medical terminology, which is designed to assist the beginning medical secretarial student in mastering medical terms. With an understanding of basic terms, the student can proceed to functional vocabulary while pursuing a career specialty. Open-lab course.

OE208 Medical Office Procedures (3,0,4) Prerequisites: OE101, OE207
This is a course covering the duties of the medical secretary which involves bookkeeping, insurance, medical ethics, legal responsibilities, scheduling, and record keeping. In addition, the student will develop a marketable skill in the use of office transcribing machines. Case histories, reports, and medical correspondence will be transcribed. Open-lab course.

*Course descriptions subject to change pending Curriculum Committee approval
OE220 Voice Transcription (3,0,4) Pre- or Co-requisites: OE202
Development of transcription skill is stressed with the operation of cassette-tape transcribers. Emphasis is placed on typing skills, the correct use of grammar and punctuation, and building efficient transcription skills. Open-lab course.

OE225 Information Processing I (4,4,1) Prerequisites: OE101
This is a lecture course which introduces basic concepts, terminology, and the emergence of information processing into the modern office. Spelling, grammar, punctuation, and vocabulary are drawn together in practical application on IBM-compatible microcomputers. New career paths, which have emerged as a result of information processing, are also covered.

OE226 Information Processing II (3,0,4) Prerequisites: OE225, Corequisites: OE220.
Development of increased keyboarding skills on the NBI shared-logic word processor is emphasized in this open-lab course. Students are introduced to information processing simulation procedures through handwritten, rough-draft, and dictated documents. Open-lab course.

OE227 Information Processing III (3,0,4) Prerequisites: OE225, OE220
Advanced-level concepts and varied office simulations are stressed in this course. Students will develop skills in information processing, database, and spreadsheet applications on the IBM-PC microcomputer. In addition, students develop the skill of dictating using cassette dictation equipment. Open-lab course.

OE230 Office Procedures (3,3,1) Prerequisites: OE101
This is a course in which subject matter and skill development are drawn together in practical application. The following concepts are stressed: telephone techniques, editing, composing, processing mail, filing, reprographics, information processing, travel, communications, interviewing, and career paths in the modern office.

OE240 Business Calculators (3,0,4) Prerequisites: OE120
This is an introductory course in the operation of the electronic display and electronic printing calculators. The instruction applies the basic functions of the machines with practical applications to business problems. Open-lab course.

OE290 Field Experience (3,0,6) Prerequisites: OE206, OE208, or OE230 (Permission of instructor required)
This is a course consisting of a carefully planned cooperative work experience in the office. To receive credit for the course, the student must meet the following requirements: (1) complete approved work experience arranged by the instructor, (2) show evidence of satisfactory progress through employer reports and instructor visitations at the office site, and (3) complete a minimum of 96 clock hours during the semester. (Permission of instructor required.)
PHYSICAL EDUCATION

PE101 Golf (1,0,2) Prerequisites: None
This course teaches the fundamental techniques of golf.

PE102 Bowling (1,0,2) Prerequisites: None
This course teaches the fundamentals of bowling, which will include equipment selection, stance, approach, delivery, scoring, and rules.

PE103 Personalized Body Conditioning (1,0,2) Prerequisites: None
This is a course involving supervised lifting of weights and body conditioning. Two tracks are possible: track one is for weight lifting; track two is a personalized conditioning program involving aerobics for athletes and others.

PE104 Archery (1,0,2) Prerequisites: None
This course is designed to teach the fundamentals of archery. Fundamentals covered include equipment selection, safety procedures, archery games and rounds, and shooting techniques.

PE105 Sports Fundamentals (1,0,2) Prerequisites: None
This course will provide the student with the basic knowledge needed to more fully enjoy watching and participating in volleyball, basketball, softball, racquetball and badminton. The semester will be divided into five sections, each dealing with a specific sport. The student will be given a broad overview of each sport, including rules, basic techniques and skills.

PE106 Volleyball (1,0,2) Prerequisites: None
This course teaches the basic skills of volleyball, including the serve, the forearm and overhead pass, the spike and the block. Students will learn the rules and the offensive and defensive strategies of the game. Emphasis will also be on conditioning exercises to improve the player's strength, flexibility, and endurance.

PE107 Cross Country Skiing (1,0,2) Prerequisites: None
Students will learn the fundamental principles of cross country skiing. This will include proper equipment selection, use and maintenance. The primary learning process will be via skiing in the field.

PE108 Social Dancing (1,0,2) Prerequisites: None
This course will teach the student basic steps in modern social dancing (swing, foxtrot, cha-cha, waltz, disco, etc.) and the courtesies necessary for developing poise and confidence on the dance floor.

PE109 Folk Dancing (1,0,2) Prerequisites: None
This is a general course designed to develop skills and techniques in the various country and folk dances.
Introduction to Physical Fitness (1,1,1) Prerequisites: None
This course will provide the student with a generalized overview of
physical fitness. The course will bring together terms often seen in
print separately but seldom explained in relationship to each other,
such as: cardiovascular, aerobics, stress, cholesterol, nutrition,
lifetime sports and others. Students will assess their own fitness level
and develop individualized lifelong plans for improved health.

Karate I (1,0,1) Prerequisites: None
This course is designed to teach the student the basic kicks, punches, and
blocks of karate.

Karate II (1,0,2) Prerequisites: PE111
This is a continuation of PE111. Students completing this course will be
encouraged to attempt the tests for their lower degree belts.

Cross Country Skiing/Beginning Tennis (1,0,2) Prerequisites: None
This course is designed to allow participation in winter and spring
physical activities. Fundamental cross country skiing principles will be
learned in the first half of the spring semester and the basic skills of
tennis will be learned in the second half.

Personal Self-Defense (1,1,1) Prerequisites: None
Students learn basic self-defense strategies in avoiding potential
dangers. Methods of instruction include techniques for avoiding and
averting physical harm as well as the presentation and discussion of
concepts and philosophies about personal self-defense.

Advanced Personal Self-Defense (1,5,1) Prerequisites: PE114
Students learn advanced techniques in personal self-defense using methods
of defense found in Karate, Judo, Aikido, Kendo and other martial art
forms.

Racquetball (1,0,2) Prerequisites: None
This course teaches the student the fundamental skills needed to play
racquetball for fun and physical conditioning.

Bicycling (1,0,2) Prerequisites: None
This course teaches the student how to select, adjust, maintain, and use
equipment properly. The student will also learn safety and riding
techniques. Students are expected to log 150 to 200 miles during the
semester.

Beginning Tennis (1,0,2) Prerequisites: None
This course teaches the basic skills of tennis, including serve, forehand
and backhand ground strokes. Students will also learn the rules and
strategy of the game. A class tournament will be held during the last
week of class.

Intermediate Tennis (1,0,2) Prerequisites: PE119
This course further refines the skills (ground strokes, serving,
volleying) and knowledge (rules, strategies, and techniques of
participation) of the beginning tennis player.
PE121 Sports Officiating (1,0,2) Prerequisites: None
This course presents the rules of major sports, officiating techniques, relationship with players and school officials and game administration. The major emphasis is to stimulate students into becoming registered officials with the State Association.

PE122 Beginning Skiing (1,0,2) Prerequisites: None
This course teaches the basic ski maneuvers. Students will be instructed through wide-stance parallel turns. This course includes information on ski maintenance and waxing, a study of different types of skis and bindings and offers a basic knowledge of ski equipment.

PE123 Intermediate Skiing (1,0,2) Prerequisites: PE122
This course includes all intermediate ski maneuvers with special emphasis on parallel skiing plus an introduction to ski racing, including a study of different types of courses with styles. Ski maintenance and technical information on skis and bindings will be studied also.

PE124 Advanced Skiing (1,0,2) Prerequisites: PE123
This course teaches the fundamentals of ski instruction and advanced ski techniques. This course will consist of the theory of ski mechanics, theory of teaching skiing, theory of basic ski maneuvers, practice teaching and advanced ski techniques.

PE130 Beginning Swimming (1,0,2) Prerequisites: None
This course will cover the backstroke, breaststroke, butterfly, sidestroke, crawl and human stroke. The course will also include safety, rescue and drownproofing.

PE131 Intermediate Swimming (1,0,2) Prerequisites: PE130
This course is designed to improve the swimmer's skill in the basic swimming strokes. Water safety, diving, water games, and elementary teaching techniques will also be covered.

PE133 Advanced Lifesaving and Water Safety (1,0,2) Prerequisites: PE131
This course will train the student to work as a lifeguard in those situations where a Red Cross Advanced Lifesaving and Water Safety certificate is required.

PE134 Water Safety Instructors Certification (1,0,2) Prerequisites: PE133
This course will train the student to work as a Red Cross-certified swimming instructor. Basic stroke evaluation as well as teaching techniques and water safety will be covered.

PE135 Skin and Scuba Diving (2,1,2) Prerequisites: None
This course teaches the student those skills needed to become a safe scuba diver. Students successfully completing the course will be encouraged to take certification tests.
PE140 Advanced Open Water & Rescue Diving (2,1,2) Prerequisites: Student must be at least 15 years of age; scuba diving certification; and, current CPR certification. The course is designed to provide the student with the theory and practical application in advanced and rescue diving.

PE205 Emergency Health Care (2,2,0) Prerequisites: None. This course covers first aid for wounds, shock, burns, poisoning, etc., as well as CPR. Students successfully completing the course will qualify for the Red Cross Standard First Aid certification.

PE231 Swimming Fitness (1,0,2) Prerequisites: PE131 or student must have written departmental approval. This course will provide the student with the knowledge and guidance to improve health and physical fitness through exercise and training in a swimming program. This conditioning course will cover the advantages and benefits of swimming; principles of training, evaluation and motivation; minor health annoyances and stroke mechanics.
PARALEGAL STUDIES

PL100 Introduction to Paralegal Studies (3,3,0) Prerequisites: None
This course provides the student with a broad overview of paralegal services. It is designed primarily for students intending to pursue a career in law, short of becoming a lawyer. It has relevance to all students interested in the legal system. The course explores paralegal duties, responsibilities, and challenges. The course includes career opportunities as well as practical applications of legal philosophy, research methodology, and related subjects. A key part of the course focuses on developing an appreciation of the American legal system's processes and operations. The student will also become exposed to legal research, terminology, and legal writing.

PL110 Legal Research and Writing (3,3,0) Prerequisites: LA100
This course is designed to teach students the sources of law and how to research legal issues using these sources. The course will require the students to write a legal memorandum and a legal brief using the required format for each paper. Students will learn how to analyze legal issues and prepare careful, crafted, written presentations of their research and analysis.

PL215 Litigation I: Pretrial Matters (3,3,0) Prerequisites: PL100
This course is the first of two courses designed to familiarize the student with litigation process. It provides the student with an in-depth study of pre-trial considerations necessary for litigation, including jurisdiction, venue, statutes of limitations, pleas, discovery, and other pre-trial matters.

PL216 Litigation II: Trial and Appellate Procedures (3,3,0) Prerequisites: PL215
A continuation of PL215. This course provides the student with an in-depth study of trial considerations and procedures. Evidence, interviews, client preparation, jury selection, arguments, instructions to the jury, verdicts and other pertinent trial-related activities will be covered. Emphasis is on the role of the legal assistant in trials and appeals.
SKILLS DEVELOPMENT

SD100  Human Potential (1,1,0) Prerequisites: None
Attention will be given to increasing personal acceptance and understanding of self and others through structured small group activities.

SD108  Problem Solving (3,3,0) Prerequisites: None
This is a course in general problem-solving skills. The techniques used in solving a variety of problems that occur in all aspects of college courses and in all walks of life will be covered. This is an elementary course which assumes no prior knowledge beyond basic reading, writing, and arithmetic skills.

SD110  Career Development (1,1,0) Prerequisites: None
This is an overview of career/life style planning. Values, skills, interviews, occupational information, resumes, interest inventories, decision making and placement are topics that are covered in this course.

SD120  Dealing with Stress (1,1,0) Prerequisites: None
This course is designed to introduce the student to the topic of stress and how it affects behavior and to help the student identify alternative methods of dealing with stress.

SD130  Women's Awareness (1,1,0) Prerequisites: None
This course is designed to offer women new skills for improving self-awareness and understanding and to increase their ability to plan and set goals. Such topics as women in history, stereotyping in our society, career options and family relationships will be discussed.

SD140  Reading for Fun and Profit (1,0,1) Prerequisites: None
This course is designed to help students develop a keener appreciation of reading: (1) for fun--leisure time activity which is not only entertaining, but also thought provoking; and, (2) for profit--activity that can help one develop a fuller personality, grow intellectually, become more aware of the world and one's place in it, and enhance one's self-worth and one's value to others in society. Students study a selection of reading material and meet periodically with each other and the instructor to discuss, interpret, and evaluate that material.

SD145  Keyboarding (1,0,2) Prerequisites: None
This course is an introduction to the computer keyboard. The concept of typing the alphabet, numbers, and symbols by touch is stressed. Open-lab course.

SD150  Developmental Reading I (1,0,1) Prerequisites: None
The purpose of this course is to assist students in the development and improvement of reading skills. In a lab format, students will receive testing to identify reading skill levels, programmed materials to improve reading skill levels and individual assistance from a reading specialist as needed. A grade of "S" (satisfactory) will be used to indicate satisfactory completion of the course.
SD151 Developmental Reading II (1,0,1) Prerequisites: None
This course is designed for students who have successfully completed SD150 and wish to develop more sophisticated reading skills.

SD152 Developmental Reading III (1,0,1) Prerequisites: None
This course is designed for students who have successfully completed SD151 and wish to develop more sophisticated reading skills.

SD153 Developmental Reading IV (1,0,1) Prerequisites: None
This course is designed for students who have successfully completed SD152 and wish to develop more sophisticated reading skills.

SD156 Efficient Study (2,2,0) Prerequisites: None
For the student seeking a thorough review of the principles of efficient study, this course provides instruction and practice in textbook study, note-taking, test-taking, study environment and memory techniques.

SD158 Efficient Reading (1,0,1) Prerequisites: None
This course is designed to enable students to develop faster and more flexible reading rates, as well as improve comprehension and vocabulary skills. Basic techniques covered will be reading in thought units, varying rates to purpose, identification of main idea, and relationship patterns, and vocabulary development through use of context. Individual growth in rate and comprehension will be measured by the use of timed pre and post tests.

SD160 Developmental Mathematics I (1,0,1) Prerequisites: None
This course is recommended to students not intending to enroll in courses requiring advanced math proficiency, but who wish to develop basic arithmetic skills. Emphasis is placed on computations with whole numbers, fractions, decimals, percentages, and the metric system. In a lab format, students work individually to complete units for which a specific weakness has been diagnosed. A grade of "S" will be used to indicate satisfactory completion of the course.

SD161 Developmental Mathematics II (1,0,1) Prerequisites: None
This course is available to students who have successfully completed SD160 and would like to continue developing basic arithmetic skills.

SD162 Developmental Mathematics III (1,0,10) Prerequisites: None
This course is recommended to students intending to specialize in business, natural science, mathematics, automotive, secretarial, or nursing programs. In addition to computations with whole numbers, fractions, decimals, percentages, and the metric system, students will receive instruction in consumers applications of basic mathematics, exponential notation, square roots, signed numbers, plane geometry, and solving equations.

SD163 Developmental Mathematics IV (1,0,1) Prerequisites: None
This course is available to students who have successfully completed SD162 and would like to continue developing their math skills.
SD170  Basic Writing Skills (2,0,2) Prerequisites: None
This course provides the successful student with the skills necessary to
write concise, correctly punctuated sentences using standard English. In
a lab format, students learn to write complete sentences utilizing the
common sentence patterns employed in English. Major aspects of the course
will be: grammar as it relates to punctuation and clarity, spelling, and
sentence combining.

SD175  Improving Reading and Writing (3,3,0) Prerequisites: None
This course offers the student an opportunity to improve communication
skills in both reading and writing. Throughout the course, the
relationship between good writing and reading for comprehension will be
stressed. Emphasis will be placed on grammar, sentence structure,
vocabulary development, spelling and paragraph construction.
SOCIAL SCIENCES

SS110 Introduction to Social Science I (4,4,0) Prerequisites: None
This course introduces the student to the interdisciplinary approach to
the study of society and human behavior. Methodology, the development of
skills necessary to study and research in the social sciences, is
emphasized. Attention is given to the study of power, its use and
distribution, as an overall framework for examining the nature of our
society's strengths and weaknesses. Materials will be drawn primarily
from economics and political science. Special emphasis will be given to
the rights and responsibilities of citizenship and the form and functions
of government at the National, State and Local level.

SS111 Introduction to Social Science II (4,4,0) Prerequisites: None
This course is a continuation of SS110. (Completion of SS110 is
recommended before enrolling in SS111, but is not required.) Materials
will be drawn from history, anthropology, sociology and psychology as the
study of society and human nature continues emphasizing selective aspects
of culture and contemporary social problems.

SS215 Principles of Economics (3,3,0) Prerequisites: None
This is a one-semester survey course in introductory economics. Although
this course provides exposure to both macroeconomics and microeconomics,
greater attention is given to macroeconomics, which is related to issues
of national economic policy. Studies include foundations of economic
analysis, the public economy, national income, stabilizations, growth,
employment, and taxes.

SS220 General Psychology (3,3,0) Prerequisites: None
This course familiarizes the beginning student with the basic concepts and
methods used by psychologists to study human behavior. Among the subjects
covered are experimental methods, human growth and development,
intelligence, perception, learning, motivation and emotion, personality
disorder and therapy, and group behavior. Daytime, on-campus sections of
this course are taught using a modified Keller Plan approach; other
sections follow a more traditional classroom lecture-discussion format.

SS221 Child Psychology (3,3,0) Prerequisites: None
Students in this course study psychological theory and experimental
findings as they apply to understanding and influencing children's growth
and development. Emphasis is placed upon such basic concerns as the
effects of heredity and environment, the processes of maturation,
intellectual growth and development, and childhood anxiety.

SS230 Sociology (3,3,0) Prerequisites: None
This course familiarizes beginning students with the basic concepts and
methods used by sociologists to study society. Among the topics covered
are culture, social structure, social class, institutions, demography,
deviance, and social change. Emphasis is placed upon acquainting the
student with the sociological perspective of human behavior and our modes
of social organization.
SS235 Social Problems (3,3,0) Prerequisites: None
Students in this course study the sociological approach to social problems. Subjects covered include mental illness, crime, poverty, family and community disintegration, violence, ecology and current events.

SS240 Political Science (3,3,0) Prerequisites: None
This course is an introduction to politics and government as they operate at the federal level. Although in many ways it is a basic traditional survey sequence in American Government, the course goes by 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, we will attempt to discover how the following areas relate to power, influence, and decision-making in American politics: Our political culture, our Federal structure; the Constitution; public opinion, political socialization, campaigns and voting; pressure groups and lobbying; political parties, civil rights and liberties, and international affairs. This course points out problem areas and inequities in development of our lives. This course relies on both historical and contemporary examples, stressing the present-day practice of politics to illustrate and explain the principles and processes outlined above.

SS250 United States History to 1865 (3,3,0) Prerequisites: None
This course will critically examine America's past from the period before the European takeover and domination of the North American continent until the time at which a young, but increasingly powerful United States is ripped apart by Civil War. The conflicts between individualism and collectivism, nationalism and sectionalism, as well as those conflicts between social classes and between ethnic groups are examined as themes throughout this course. 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, whose preoccupation is not with the Great Events of the day, but with the day-to-day business of living. This course will focus on the following periods in an effort to contribute to the understanding of America's infancy and early youth: 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.
SS251 United States History Since 1865 (3,3,0) Prerequisites: None
This course is a continuation of SS250, with a similar emphasis on social history and the conflicts between individualism and collectivism, between social classes, and between ethnic groups as outlined above, as well as new conflicts between liberals and conservatives, isolationists and imperialists, centralists and localists, that remain with us today. The course focuses on the following periods in our effort to understand the factors that influence America's present behavior: 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.

SS255 Michigan History (3,3,0) Prerequisites: None
This course presents the beginning student with a broad overview of the history of the Wolverine State. Several themes (immigration, exploration, technology, mobility, abundance, exploitation) will be explored, especially as they relate to the broader picture of national history—indeed our study of Michigan might serve as a case study of all America. Several important overlapping periods of Michigan history will be 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 subsequent industrialization and growth of the tourist industry. In addition, every effort will be made to focus on local aspects of the state's history, as they relate to themes and periods above.

SS258 Sex in History (3,3,0) Prerequisites: None
This course proposes to examine human sexual behavior in historical context. In that sense the course is an overview of change and continuity in sexual attitudes, norms, and practices in several civilizations, from prehistory to the present day, as well as how they have been reflected in art and literature, both classic and popular. The first section of the course will chronologically explore sexual custom in Greece and Rome, discuss the influence of Christianity, look at China, India and the Arab world, and then focus on Europe and the Americas through the Victorian Age. The second section will involve a more in-depth look at the complex interrelationship between male and female roles in modern America.

SS260 Cultural Anthropology (3,3,0) Prerequisites: None
In this course students will study about different cultures, particularly preliterate ones. Subjects studied will include 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.
TECHNICAL DRAFTING AND DESIGN

TD100 Technical Drafting (3,1,4) Prerequisites: None
This laboratory/lecture course includes the knowledge and manipulative skills needed for work with drafting instruments, to create linework, lettering, geometric construction, sketching, multiview projection, sectioning, basic dimensioning, isometric, oblique and perspective projection.

TD105 Blueprint Reading (2,5,1.75) Prerequisites: None
This course is a technical blueprint reading course for manufacturing and tool and die apprentice training. The class is structured around a workbook approach to learning, with lecture sessions preceding workbook assignment sessions. Topics covered include lines on blueprints, basic auxiliary projection, sections, section lining, dimensioning, sub assembly and assembly drawings, stock list, revisions, title blocks, general notes, and assembly dimensions.

TD106 Layout and Precision Measurement (2,5,1.75) Prerequisites: TD105
This course is a technical blueprint reading course with practical application. The class is structured around a workbook approach to learning, with lecture sessions preceding workbook assignment sessions. Topics covered include: general tolerancing, geometric and positional tolerancing and symbols, fits between mating parts, weldment blueprint reading and weldment assembly. The student will be required to check manufactured parts against part prints with precision measuring devices.

TD110 Descriptive Geometry (3,1,4) Prerequisites: TD100
This is a laboratory/lecture course consisting of one hour of lecture and four hours of supervised laboratory instruction each week. Topics covered include projection of points, lines and planes, revolution of objects, intersection of planes and solids, and projection of oblique and true view surfaces.

TD120 Shop Drawing (2,5,1.75) Prerequisites: None
This is a condensed course covering the basic principles and techniques of shop drafting, stressing the essentials of lettering, instrument usage, technical terms, applied geometry, freehand sketching, orthographic auxiliary and section drawings, and dimensioning practices. Isometric and oblique pictorial drawings are also included.

TD130 Technical Drafting II (3,1,4) Prerequisites: TD100
This is a lecture/laboratory course and includes one hour of lecture theory directly related to four hours of instructor supervised laboratory sessions. The course includes: dimensioning, (English and metric) tolerancing, threads, springs, representation of screws, nuts, bolts, dowels, fastening devices, geometric and positional tolerancing, and detailing of assembly drawings.
TD135 Tool and Die Design I (2.5,1.75) Prerequisites: TD120 or TD100
This course is structured primarily for the tool and die apprentice student. Lectures will be followed by reinforcing laboratory sessions which will consist of sketching sheet metal die components. Emphasis is not on line quality and technique, but merely the communication of ideas and design graphically. Topics covered include: basic discussion of tools, dies and punches; blanking force; standard die sets; and die components; drop through blank dies; combination blank and pierce return dies; and various types of positive knock-out designs. The student will be required to maintain a notebook, which will be reviewed by the instructor at the end of the course and returned for future reference.

TD136 Tool and Die Design II (2.5,1.75) Prerequisites: TD135
This course is structured primarily for the tool and die apprentice student. Lectures will be followed by reinforcing laboratory sessions, which consist of sketching sheet metal components related to the classroom discussion. Topics covered include: basic flat part progressive dies; stock guides, pitch gauges, stock feeders, roller guides, ball bearing guide pins and bushings, strip layout; availability of various standard punches, dies, and components; and knowledge and review of tool and die standardized components and catalogs. Students must maintain notebooks which will be reviewed by the instructor at the end of the course and returned for future reference.

TD137 Tool and Die Design III (2.5,1.75) Prerequisites: TD136
This course is structured primarily for the tool and die apprentice student. Lectures will be followed by reinforcing laboratory sessions, which consist of sketching sheet metal die components related to the classroom discussion. Topics covered include: mathematical sheet metal blank development, sheet metal draw development and redraw sleeves, progressive dies, various types of cam piece dies, pilot pins, keeper blocks for pads and slides. The student will be required to maintain a notebook which will be reviewed by the instructor at the end of the course and returned for future reference.

TD140 Plastic Mold Design I (2.5,1.75) Prerequisites: TD120 or student must have written departmental approval.
This course covers 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. Also studied are 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.

TD141 Plastic Mold Design II (2.5,1.75) Prerequisites: TD140
This is a continuation of TD140.

TD142 Plastic Mold Design III (2.5,1.75) Prerequisites: TD141
This is a continuation of TD141.
TD215 Product Design (3,2,3) Prerequisites: TD100, or written departmental approval

This course is designed to provide the drafting technology student with the ability to analyze, design, and develop solutions to mechanical design problems. The instructional approach is to encourage the student to conceptualize and communicate using engineering graphics, mathematics, and technical science. Emphasis is placed on "manufacturability" and "productability" of a particular new product design.

TD230 Jig and Fixture Design (3,1,4) Prerequisites: TD130

This is a laboratory/lecture course and includes four hours of drafting practice and one hour of drafting lecture theory directly related to the laboratory work. The course includes the design of the following jigs and fixtures: plate jig, drill jig, closed tumble fixture, leaf type jig, indexing jig and milling fixture. Use of standard components from various catalogs is also covered.

TD250 Computer Aided Drafting (3,2,2) Prerequisites: Student must have written Departmental approval.

This course consists of computer-generated graphics to include terminology, techniques and application of computer-aided drafting (CAD) tool engineering, tool design, architecture, and electronics. Two-dimensional design drafting is stressed. Four hours lecture/laboratory combination.
WELDING TECHNOLOGY

WE107  Welding Technique and Joint Preparation (3,1,3) Prerequisites: None
This course gives the person who has a basic understanding of welding a chance to brush up on existing welding skills and pick up some proper technique, rod selection and learn the basics of out-of-position welding.

WE108  Welding and Fabrication (3,1,3) Prerequisites: WE107
This is a study of the five basic joint designs utilizing the oxyacetylene and arc process with emphasis on the 1, 2, 3, and 4 F positions.

WE110  Automotive Welding (2,1,2) Prerequisites: None
This course is intended to give students of automotive maintenance an understanding of the basic techniques, machine operations and safety rules pertaining to soldering, welding, and brazing of lighter gauge materials.

WE120  Welding and Fabrication II (3,1,3) Prerequisites: WE108
For the returning student, this course will let the student pick up where he/she left off. Continuing on the 1, 2, 3, and 4 G weldments, testing welds by means of destructive and non-destructive methods will be used.

WE121  Advanced Welding (3,1,3) Prerequisites: WE120
This course consists of qualification type weldments in accordance with A.W.S. welding code, using S.M.A.W. process. Also included in this course is a study of T.I.G. and M.I.G. procedures.

WE122  Related Welding Skills (3,1,3) Prerequisites: WE121
Designed to cater to the needs of students whose curriculum calls for a related course in welding. This course covers the area of oxyacetylene flame cutting.

WE124  Agriculture and Construction Welding (1,.5,1.5) Prerequisites: None
This course is intended for those who must 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 will be allowed but must be removed after each class.

WE125  TIG Welding (2,.5,1.75) Prerequisites: None
This course is designed around the needs of industry, where gas-tungsten arc welding (TIG) is emphasized. Both classroom and lab will concentrate on the TIG process, with some oxyacetylene welding being used for manipulative practice.
DIRECTED STUDY

XY292 *Cooperative Work/School Experience PROPOSED (4,1,15 or 5,1,20)
Prerequisites: 30 credits with a 2.0 grade point average, plus
departmental approval according to department standards.
A course in which each student holds a job which is related in some way to
her/his field of study. Performance on the job is monitored and guided by
the employer and College personnel. Attendance at one-hour weekly seminar
and submission of a final report are also required.

XY295 Modular Course (1 or 2 credit hours) Prerequisites: None
Modular courses are one or two hour units of study which contain part of
an existing course. Such courses respond to special, often one-time
needs.

XY299 Directed Studies (1 or 2 credit hours) Prerequisites: Student must have
written departmental approval.
Directed study courses are usually thought of in connection with advanced
students or those who have exhausted regular college offerings. The
average student pursuing an associate degree would not find time for this
type of credit. The concept does not apply to remedial studies.

The directed study cannot be used near the end of the semester to fill
requirements, it must be planned in advance. Careful attention must be
given to the description of the work proposed because there is no other
course outline or description on file to document the experience.

A student interested in Directed Study must contact an instructor who will
sponsor the proposed activities. That teacher will complete the written
plan on proper forms and will seek approval from the instructional
administrator before any work begins. The student must enroll in an
appropriately labeled section of Directed Studies 299, e.g., HU299, SS299,
etc.

*Course description subject to change pending Curriculum Committee Approval
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Director of Business & Finance
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Placement Representative
Special Needs Program Supervisor
Office Education Lab Supervisor
Natural Science Lab Supervisor
Programmer
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Morford, Leslie, M.A.
Moutsatsion, Peter, M.A.

Business Data Processing
Food Service Technology
Business Studies
Business Data Processing
Drafting Technology
Nursing Education
Social Science
Nursing Education
Electronics Technology
Language Arts
Humanities (Art)
Automotive Mechanics
Automotive Mechanics
Counselor
Counselor
Social Science
Business Studies
<table>
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<tr>
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<tr>
<td>Nelson, Dennis, M.A.</td>
<td>Social Science</td>
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<td>Roy, Janice, M.A.</td>
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<td>Stearns, Donald, M.A.</td>
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<td>Walden, Joanne, M.A.</td>
<td>Office Education</td>
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<tr>
<td>Witter, Marilyn, R.N., M.A.</td>
<td>Nursing Education</td>
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MONTCLAIR COMMUNITY COLLEGE CALENDAR

Spring, 1988

Registration
December 8 and 9
January 12, 13, and 14
January 18 through 27
January 16
March 27 through April 3
April 1 (Good Friday)
May 13
May 13

Students enrolled Fall 1987
Open to all students
Late registration
Classes begin
Spring break
No classes/College closed
Classes end
Graduation

Summer, 1988

Registration
May 3 and 4
June 8 and 9
June 13 through 16
June 16
July 4 (Independence Day)
August 5

Returning Students
Open to all students
Late registration
Classes begin
No classes/College closed
Classes end

Fall, 1988

Registration
August 22 and 23
August 24
August 25 through September 6
August 25
September 5 (Labor Day)
November 24 and 25 (Thanksgiving)
December 19

Returning students registration and new student orientation and registration
Open to all students
Late registration
Classes begin
No classes/College closed
No classes/College closed
Classes end

Spring, 1989

January 14 - May 12

Fall, 1989 (Tentative)

August 24 - December 18

Spring, 1990 (Tentative)

January 13 - May 11
NOTE TO STUDENTS: Campus maps identifying classroom locations are available in the Student Services Office located in the Administration building.