



1976 - 1977 **CATALOG**



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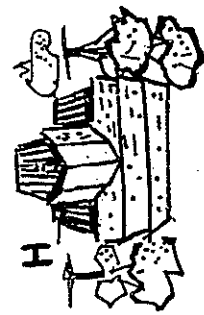
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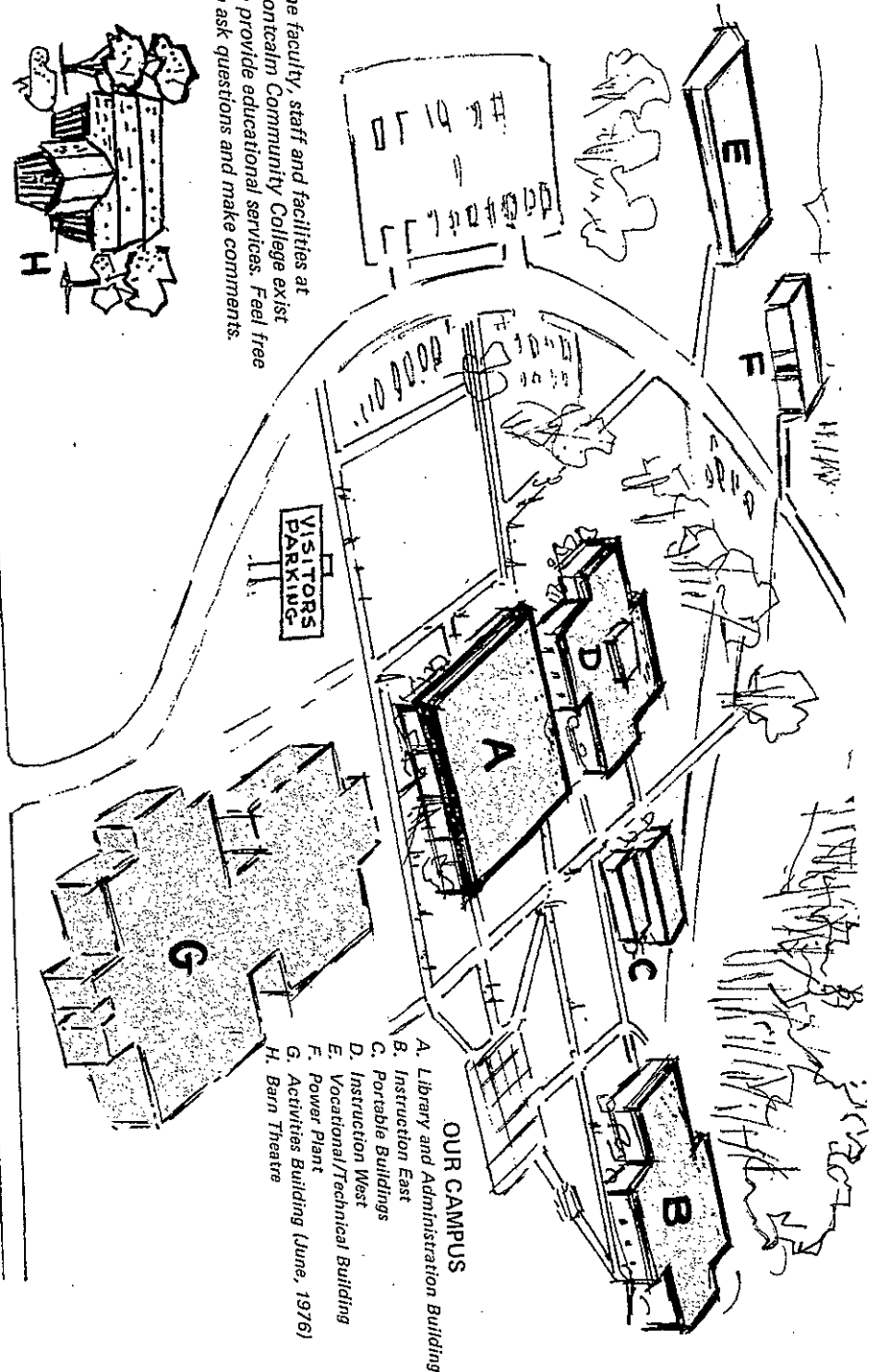
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SIDNEY ROAD



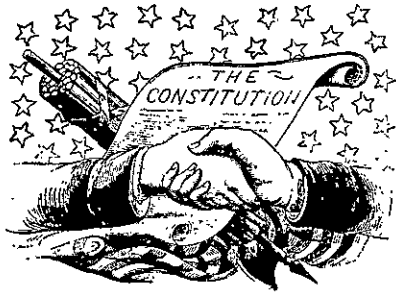
The faculty, staff and facilities at Montclair Community College exist to provide educational services. Feel free to ask questions and make comments.



OUR CAMPUS

- A. Library and Administration Building
- B. Instruction East
- C. Portable Buildings
- D. Instruction West
- E. Vocational/Technical Building
- F. Power Plant
- G. Activities Building (June, 1976)
- H. Barn Theatre

1976 - 1977 CALENDAR



Fall Semester - 1976

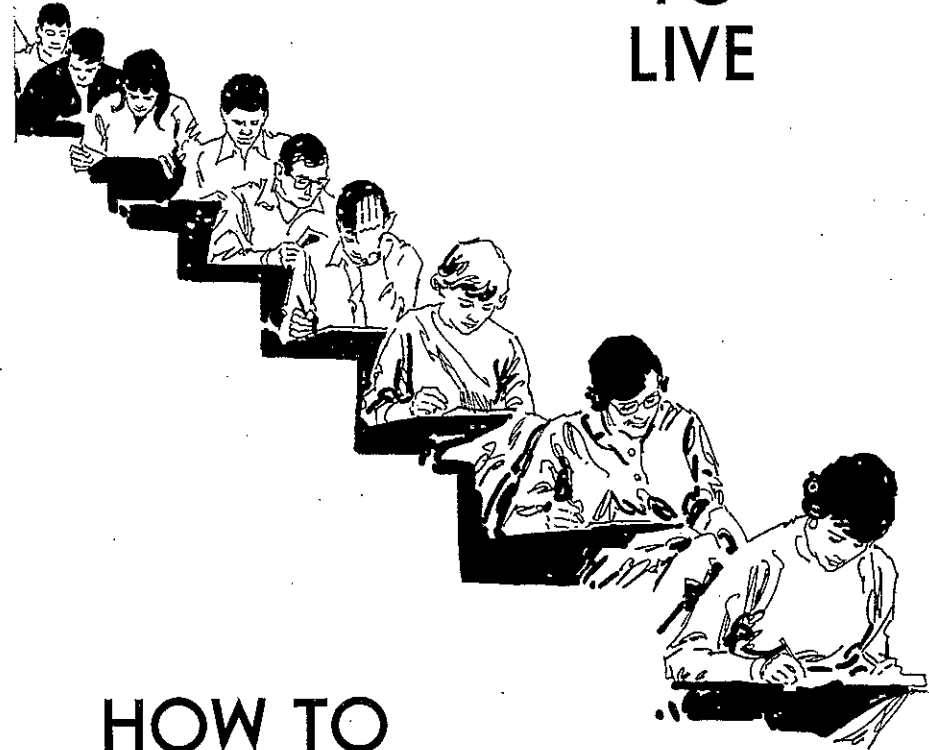
August 26	Final Day of Registration
August 25-26	Faculty Conference
August 30	First Day of Classes
September 6	Labor Day
November 25-28	Thanksgiving Recess
November 29	Classes Resume
December 22	Last Day of Classes
December 27	Grades Due

Spring Semester - 1977

January 5	Final Day of Registration
January 4-5	Faculty Conference
January 7	First Day of Classes
March 5-13	Spring Recess
March 14	Classes Resume
April 8	Good Friday
April 11	Classes Resume
May 6	Last Day of Classes
May 11	Grades Due
May 12	Faculty Conference
May 13	Graduation

AT MCC STUDENTS LEARN

HOW
TO
LIVE



HOW TO
MAKE
A LIVING



Dr. Clifford J. Bedore, Jr.

FOREWORD

The mission of Montcalm Community College is "to meet the educational needs of our post-secondary constituents." The college exists to provide opportunities for persons in its service area to advance their educational pursuits. The purpose of this catalog is to present information regarding Montcalm Community College that will assist in planning use of the services of the college. Montcalm Community College wishes to encourage questions about its activities. Your questions may be a means of helping us improve our ability to serve you.

Sincerely,

Clifford J. Bedore, Jr.
President

GENERAL INFORMATION

Historical Review

As the result of the efforts of a group of concerned citizens, the Montcalm Community College idea passed through the study stages and became a reality by means of an election held March 2, 1965. The newly-elected Board of Trustees, provided with a one mill tax levy and a will to confront the task, selected a president and a business manager who began their official work in August of 1965. The processes of selection of a site and an architect were completed in early fall of 1965. Construction bids for the first building were opened in September of 1966 and the first buildings were dedicated September 26, 1967.

In order to emphasize the strong community commitment to vocational education, the third professional to join the Montcalm Community College staff on February 1, 1966, was a Dean of Vocational/Technical Studies. The first full-time programs of Montcalm Community College were vocational programs which started on August 29, 1966. By late fall of 1967, all of these programs were housed on campus. In the spring of 1975, over 55% of the registered credit hours reported were in vocational courses.

The Liberal Arts, or academic aspect of the college, was started by offering several courses in the fall of 1966 at the Central Montcalm High School. In the fall of 1967, the college transfer and general education programs were also housed on the campus. During the ensuing years the quality of these programs has been proven by the success of the students who have transferred to baccalaureate institutions.

In August, 1966, the Learning Resources Director began assembling materials for a comprehensive study center for Montcalm Community College.

On July 1, 1967, with the arrival of the first Dean of Students, the formal counseling, admissions, and registration program began. Student activities such as student newspaper, choir, student government and interscholastic athletics began during the fall semester of the 1967-68 academic year.

The position of Academic Dean became a part-time position in January of 1968 and has been a full-time position since the fall of 1968.

Because of the recognized role of community involvement in a community college and the pressing priorities demanded of other administrators, on February 1, 1969, the position of Director of Community Services was filled. This division assumed responsibility for coordinating needs of various groups from the community and the resources of the college. The results have been adult education courses, non-credit courses, short courses, conferences, and cultural activities. The development of off-campus teaching centers has been another direct result of efforts by Community Services. The Community Service activities are now directed by the Dean of Student and Community Services.

The college staff, Board of Trustees, and citizens of Montcalm Community College District will strive to maintain the college as an institution dedicated to the service and well-being of the community it serves.

The Educational Plan

Mission: The primary mission of Montcalm Community College is to meet the educational needs of our post-secondary constituents.

EDUCATIONAL OBJECTIVES

Montcalm Community College subscribes fully to the following institutional objectives:

1. To provide vocational and technical study leading to occupational competence at the semi-professional and skilled levels; also to assist in upgrading the skills of unemployed persons.
2. To provide academic study at the freshman and sophomore levels transferable to senior institutions and acceptable toward a baccalaureate degree.
3. To provide assistance for all students through social, vocational, and educational counseling and guidance.
4. To provide general education for those who study primarily to become more knowledgeable about their cultural, social and scientific environment.
5. To provide adult and continuing education, both through the regular curriculum and through study designed to meet specific objectives.
6. To provide a center for community service through exhibits, lectures, concerts, and similar cultural activities; also, to provide facilities in which community groups may carry on similar projects.
7. Through an organized program of student activities, to provide for growth in social skills and the development of responsible community citizenship.

Being aware that the above objectives describe a comprehensive community college, the staff and trustees of Montcalm Community College are utilizing them as guidelines in the development of this college.

However, to describe the objectives of Montcalm Community College solely in such general terms is stating only one aspect of the goals. The important purposes are better defined in terms of the people who will participate in the educational program, the instructors and students—the community learners mentioned above. Only to the extent that the educational needs of students are met will the objectives of Montcalm Community College be realized.

In establishing the programs, certain assumptions have been made regarding these needs:

1. At least 50% of the student body will request programs in the vocational/technical fields.
2. At least 50% of the enrolled students will successfully transfer to senior institutions to complete work on a baccalaureate degree, and some of these will be in technical programs at Montcalm Community College.
3. All students—youth and adult, academic and vocational/technical, transfer and non-transfer—will expect to understand a great deal about today's complex society after completing study at this institution.
4. All students will anticipate a quality collegiate program of studies—including skillful teaching, opportunities for creative thinking, and the challenge to become self-directive in their academic life.
5. Each student at Montcalm Community College expects that the chief outcome of his educational experience at this institution will be the skill, mental awareness, and persistent desire to become a lifetime learner.

Both the institution and personal objectives stated above become a mandate to those in whom the responsibility for the development of this college has been vested. These will consistently form the master guidelines against which decisions regarding the program of studies, building design, and provisions for student life are measured.

ACCREDITATION

Montcalm Community College holds full accreditation with North Central Association.

Almost from the moment the first president began his work with Montcalm Community College, the institution aggressively followed the prescribed steps which led to accreditation under the North Central Association of Colleges and Secondary Schools. By late 1965, the Association had appointed Dr. Daryl Pendergraft of the State University of Northern Iowa as the Consultant/Examiner for this college.

To expedite the transfer of Montcalm Community College students to four-year institutions during the normal period of five or more years before accreditation, Michigan public and private colleges and universities assured—in writing—the acceptance of academic credits at full value for which a grade of "C" or better has been earned at Montcalm Community College.

While technical and vocational courses were designed primarily to promote occupational competency for students enrolled in the programs, certain state universities agreed to appraise these Montcalm Community College credits for possible transfer where they are appropriate to a student's program.

Montcalm Community College was awarded status as a Candidate for Accreditation by the North Central Association in April of 1969, in the minimum time possible. An extensive self-study was then prepared and submitted to NCA for evaluation. In December of 1973, a four-person evaluating team visited the MCC campus and in March, 1974, representatives from Montcalm Community College appeared before a committee of the NCA Commission on Institutions of Higher Education. Shortly, thereafter, MCC was awarded full accreditation by NCA.

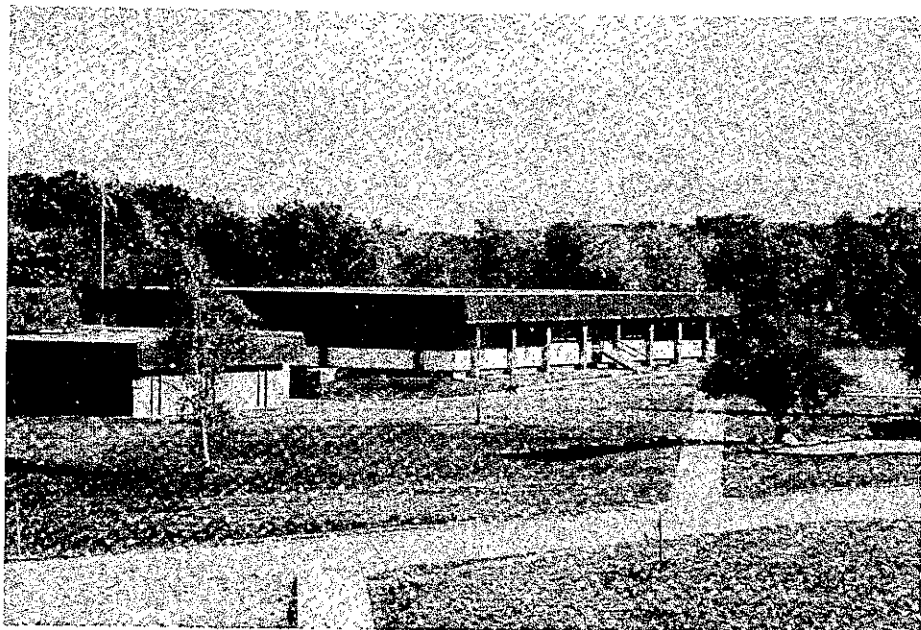
Montcalm Community College holds full membership in the North Central Association of colleges and secondary schools, the American Association of Junior Colleges, the North Central Council of Community and Junior Colleges, the Michigan Community College Association, the Association of Community College Trustees, and the Association of Governing Boards.

EDUCATIONAL PHILOSOPHY

Montcalm Community College has a basic educational philosophy of which the student should be aware. The college is committed to the following premises:

1. That setting personal goals is a lifelong process, and success in life often depends upon fulfilling those goals which one has set for himself. Also, that goal-setting is often a shaping and re-shaping process in which the student is an active participant who must find a greater awareness of himself in society. Further, that while the short time spent at Montcalm Community College does not fulfill many lifetime goals, the daily close contact between instructor and learner helps establish goals and plan how to achieve them.

2. That all educational pursuits are of equal dignity. As Governor George Romney remarked at the Montcalm Community College groundbreaking ceremonies on September 26, 1966, "All work is good, whether it is done with the head or the hands." The college foresees that its student body will be about equally divided between the academic and vocational/technical divisions and anticipates the same high level of accomplishment in both. Further, it is believed that a person whose major emphasis lies in one division would benefit from educational experiences in the other.
3. That General Education, as presented by Montcalm Community College and described later in this catalog, is a most effective means of providing for knowledgeable citizenship through the understanding of our physical, social and cultural world. Further, that the General Education approach is also effective in providing the basic groundwork for upper division collegiate study after transfer to senior institutions.
4. That stimulating, exciting and challenging teaching is vital to learning.
5. That instruction at Montcalm Community College must provide the basis for continuous lifelong learning.
6. That high standards of moral and spiritual character are an essential attribute for personal well-being.



A multi-purpose building, containing two auditoriums, a reading lab, classrooms, and instructor offices.

Instructional Facilities

The 1967-68 academic year became the time for transition from teaching classes in rented or borrowed facilities to full-scale, on-campus operation in buildings designed especially for Montcalm Community College. During the year students and their instructors began using the Two-Story Academic building, the Vocational Shop building, and then the Learning Resources Center. Also completed was the Heating Plant/Service building.

The upper level of the Learning Resources Center is the central study area. The lower level of the LRC accommodates the administration offices and cafeteria.

In addition to regular classrooms, the two-story academic facility features three demonstration/lecture rooms for the sciences, each adjacent to a well-equipped laboratory; a business secretarial wing with laboratories for business machines and shorthand transcription; the practical nursing facilities; and the art room.

Another addition to the campus is the one-story academic building, first put into use on August 25, 1969. In addition to a number of regular classrooms, its special features include two lecture/demonstration halls seating 100 and 135 persons respectively, with one small group seminar room immediately adjacent.

Early planning for instructional facilities at Montcalm Community College provided for a building which would accommodate both technical degree and vocational programs of study. However, facilities for a number of the classroom-oriented occupational studies—practical nursing, business education, drafting—were integrated into the two-story unit. During the 1966-67 year it became obvious that there was a rapidly growing need for instructional space for the industrial/mechanical skills. Consequently, planning began in January, 1967, for the vocational shop building which was ready for use by automotive mechanics, welding, industrial technology and apprenticeship beginning in January, 1968. The 1971 addition doubled the floor space permitting space for aircraft mechanics and a residential construction laboratory.

The Barn Theatre has been developed for drama activities of campus and community groups. Several miles of nature trails have been developed for nature study.

A community college activities building is under construction. It is designed to provide much needed space for large assemblies, such as commencement exercises. This area will also be available for indoor athletics. The building will provide space for physical education classes, swimming pool, recreation areas, snack area, plus student lounge and organization offices. Also included are outdoor tennis courts and a softball diamond. With the addition of these facilities, MCC will be able to expand program offerings to better serve community needs. Hopefully, the building will be a reality by May of 1976.

Admission to the College

Applicants shall possess a high school diploma or, if over the age of 18 years, shall submit to an educational equivalency examination as prescribed by the Director of Admissions.

Exceptions to the above, in keeping with the "Open Door Policy" of Montcalm Community College, may be made at the discretion of the Director of Admissions and/or the Admissions Committee.

ADMISSIONS PROCEDURE

The following procedure is followed by all students enrolling for the first time at Montcalm Community College.

1. Submit an application (available at your high school office or the College Admissions Office). Include a check for the \$5 admission fee.
2. Request that your high school office forward one copy of your transcript of grades and standardized test results to the Admissions Office.
3. Only full-time students are required to submit a report of physical examination. Exceptions are: practical nursing students, students entering MCC through Vocational Rehabilitation, and students planning on participation in physical education. These students must submit a report of physical condition regardless of the number of credit hours for which they are enrolled. An MCC physical examination form must be secured from the Admissions Office, completed by a physician, and returned to the same office.
4. The American College Test (ACT) is recommended but not required of students entering the College. Students who anticipate later transferring to four-year institutions should continue to register for the ACT.
5. Students transferring from other post-secondary schools should also have a transcript of college work sent to the Registrar.

Students who were enrolled in the previous semester or summer session need not reapply for admission. Students making last-minute plans to attend Montcalm Community College may enroll on a tentative basis. It will not be possible, however, to grant official credit for courses completed unless all admissions requirements are met.

AFFIRMATIVE ACTION PLAN STATEMENT OF POLICY

The Board of Trustees and Administrative Staff of Montcalm Community College, Sidney, Michigan, reaffirms its position and holds to an unchanging philosophy of equal opportunity for everyone. The college has established, since its inception, a policy of recruitment, employment, advancement and upgrading, based solely on qualifications—without regard to race, religion, color, national origin, sex or age.

Expenses

The Trustees of Montcalm Community College sincerely desire to keep the cost of attending this institution as low as possible for the student. However, tuition charges are a direct reflection of the present economy, and the costs of operating a college are like the economy—changing rather rapidly.

If a tuition change becomes necessary for the following academic year, all present students and new 1976-77 applicants will be notified.

RESIDENCY POLICY

Determination of residency status is governed by the following:

1. Residence within the confines of the Montcalm Community College District for a period of six consecutive months prior to the last day of registration for any term will be considered evidence of district residence.
2. Residence within the confines of the State of Michigan for a period of six consecutive months prior to the last day of registration for any term will be considered evidence of State residence.
3. The residence of any unmarried student under 18 years of age shall be determined by the residency of his/her parent(s) or legal guardian(s) if the student resides with the legal guardian.
4. Students previously registered as a non-resident may change to district resident status upon satisfying the conditions of this policy.
5. A person in the military service of the United States and the spouse or minor children shall be considered Michigan or district residents as appropriate.
6. The residence of a resident alien shall be determined in the same manner as a United States resident.
7. Initial residency and change of status will be determined by the person charged with the responsibility for registration.

It is the student's responsibility to notify the Records Office prior to completion of registration for any semester of any change in residence that would affect the residence classification. The burden of proof rests with the student. Formal leases, purchase agreements, verifiable rent receipts, drivers license or other verifiable documents may be presented to the College as evidence that one has officially adopted a domicile within the boundaries of the Montcalm Community College District (or State) and has continuously maintained such residence for a period of not less than six months prior to registration for any semester.

Students who wish to appeal the status decision may request a review by writing to the Montcalm Community College Business Office.

TUITION

Resident of Montcalm Community College District
Michigan Non-Resident Students
Out-of-State Students

\$12 per credit hour
\$17 per credit hour
\$26 per credit hour

FEES

Application for Admission (Paid only once)	\$5.00
Class Fee	\$2.00 per credit hour
Late Registration	\$5.00

(Tuition charges) for college credit apprenticeship programs shall be made in accordance with the residency requirements for all other students.

Non-credit course fees shall be established and assessed for each course.

PAYMENT OF TUITION AND FEES

1. Tuition and fees are due and payable in full on the day of registration.
2. Students unable to pay the tuition and fees should consult with the Business Office concerning a loan no less than three weeks prior to the enrollment date.
3. No other credit arrangements can be made through the college.

SCHEDULE FOR TUITION REFUNDS FOR ON-CAMPUS CLASSES

1. Refunds for students over 18 years of age will be made payable to the student and mailed to the address given by him, except in paragraph two (2) below.
2. Students under special scholarship and/or loan programs administered by Montcalm Community College will receive no refund; the refund will be returned to the donor. Those scholarships given directly to the student and not administered by the college will be refunded as in paragraph one (1) above.

If withdrawal takes place:

During first week	full refund of tuition only
During second week	75% refund of tuition only
During third week	50% refund of tuition only
During fourth week, or thereafter	no refund

SCHEDULE FOR TUITION REFUNDS FOR OFF-CAMPUS CLASSES

No refunds after first night of classes.

FEES ARE NOT REFUNDABLE.

Academic Regulations

Certain academic policies, regulations and practices prevail at Montcalm Community College. These provide the basic framework within which a student's achievement and academic status are expressed. Their appearance here is to be interpreted as official policy of the College enabling the community of learning to function.

SEMESTER SYSTEM

Montcalm Community College operates on the basis of two semesters per year. The first semester begins right after Labor Day and is completed by the Christmas holidays. The second semester opens in early January and ends about mid-May. Six and eight-week summer school sessions are usually offered by the College.

CLASSIFICATION OF STUDENTS

Freshman - A student who has completed less than twenty-five semester hours of study.
Sophomore - A student who has successfully completed at least twenty-five semester hours of study but who has not yet qualified for an Associate Degree or a certificate.
Full-time - By legal definition, one who carries twelve or more semester hours of study. However, the student must bear in mind the number of credit hours required for an Associate Degree and his common desire to graduate after four semesters of study.
Part-time - A student carrying less than twelve semester hours.

GRADUATION REQUIREMENTS

Students working toward a certificate or diploma in a vocational/technical field must complete all established requirements for the award, including at least a 5.00 grade point average on a 12.00 point scale.

Those pursuing an Associate Degree must complete not only the required semester credits, but also the proper sequence of courses as herein presented, with an overall 5.00 grade point average.

Transfer students who have earned credits at other institutions of higher education may request that these credits be applied toward an Associate Degree at Montcalm Community College. However, 24 credits of the total presented for graduation must be earned at Montcalm Community College, and the student must be enrolled at this institution during the final semester before receiving his degree.

SELECTION OF PROGRAM OF STUDY

Selection of a student's program of study takes place at the admission counseling interview prior to registration and/or the start of classes. During the counseling interview the student will be advised of specific course requirements necessary for completion of his/her program.

Exceptions to specific program requirements will be made only by the Dean of the appropriate division of the College or the Dean of Student and Community Services and/or his designated representative. Exceptions must be authorized in writing.

CLASS ATTENDANCE

It is the policy of Montcalm Community College that all students shall attend all classes in the courses for which they are registered. Absence from classes shall, in no way, relieve the student from completion of assigned work.

The matter of regular class attendance shall be resolved between each instructor and his/her students. Some absences—for reasons of illness, field trips and other like occurrences—if unavoidable, should have advance arrangements made whenever possible for completion of work.

VETERANS

Montcalm Community College has been approved for study under the "G.I. Bill" by the Veterans Administration.

Applications for entitlement to G.I. Bill benefits and information regarding study for ex-servicemen and women at Montcalm Community College are available at the Admissions Office.

GRADING SYSTEM

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

Grade	Honor Point Value
A+	12
A	11
A-	10
B+	9
B	8
B-	7
C+	6
C	5
C-	4
D+	3
D	2
D-	1
E	0
W	0
F	0
I	0
*V	
N	
S	
Failure	
Withdrew while passing	
Withdrew while failing	
Incomplete	
Audit	
Preceding a grade indicates credit is not recommended for transfer-terminal credit only	
Satisfactory (Granted in Community Education courses only.)	

*Audit applies to the situation where a person pays tuition for a course but is not required to complete assignments or examinations.

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 course work by the close of a semester for reasons beyond his/her 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. The following procedure is observed:

1. An "I" mark shall be entered on the record when a course of study is incomplete at the termination of the scheduled semester.
2. An "I" mark shall remain without alteration indefinitely or until such time as the requirements of the course are satisfied and warranted in writing by the instructor to the Registrar.
3. An "I" mark shall not be averaged with other grades to establish a grade point average (GPA).

HONORS

Each semester a Dean's Honor List will include only those students enrolled for at least 12 semester hours and who have no "Incompletes" recorded for that semester. The students on this list will have attained a Grade Point Average from 9.00 through 9.99.

The President's Honor List will include those who fulfill the above requirements and whose GPA for that semester is 10.00 or higher and meet the above conditions.

The Dean's Scholars will include only those students who have a cumulative GPA from 9.00 through 9.99 and have completed at least twenty-four (24) semester hours and having no Incompletes for their total period of enrollment. The President's Scholars will be those students with a cumulative GPA of 10.00 or higher and who meet the above conditions.

ACADEMIC PROBATION AND DISMISSAL

For students pursuing an Associate Degree, College Transfer or Certificate: All students who hope to earn an Associate Degree or Certificate in either the academic or vocational/technical studies, or who hope to transfer to a four-year institution, will be subject to the following grade point regulations:

1. Students who achieve less than a 1.00 Grade Point Average (D- average) for their first 15 hours at Montcalm Community College will be dismissed for academic reasons. Students dismissed may refer to item 5 below.
2. Failure to achieve at least a 4.00 Grade Point Average (C- average) at the end of the first semester will result in the students being placed on academic probation.
3. A student will continue on probation until his cumulative Grade Point Average has been raised to 5.00 or above.
4. While on probation, a student must achieve a 5.00 Grade Point Average each semester. Failure to do so will result in academic dismissal.
5. A student subject to academic dismissal may follow one of three courses of action:
 - a. He/she may accept the dismissal.
 - b. He/she may request assistance in the Counseling Center, primarily to explore the advisability of a change in curriculum. If such a change is decided upon, the counselor will make his/her recommendation in writing concerning the student's status.

12 General Information

Written approval for continuing in a program will be sought from the Dean of the Division into which the student wishes to enter.

- c. A student dismissed from Montcalm Community College for academic reasons may appeal before the Dean of Student and Community Services for special consideration.
6. Students dismissed for academic reasons either from Montcalm Community College or any other college, may be required to wait for a full semester before re-entering the College.
7. Students transferring into Montcalm Community College shall be subject to all regulations stated above from the beginning of their enrollment.

DROPPING/ADDING CLASSES

In order to officially drop/add a class or classes, students must follow this procedure:

1. Students must get a Drop/Add form from the Registrar. This form may be obtained beginning with the first day of classes.
2. After the student has properly filled out the Drop/Add form, the student will take the form to the instructor of the class you wish to drop/add for signature and return the form to the Registrar.
3. It is important to officially drop/add in order that you receive proper course credit.
4. Should it seem necessary to drop all classes and withdraw from the College, the above procedure should be used so the transcript of classes taken will reflect a proper withdrawal.

STUDENT RIGHTS REGARDING RECORDS

Students have the right to challenge the content of their records at any time. The college may not release personally identifiable records or files of students without their written consent other than to other school officials, schools of transfer, comptroller general secretary of HEW, etc., financial aid offices or under court order.

**Student Life**

The academic and social atmosphere in which a student lives, works and plays is a vital part of the college experience.

Students, as citizens in the College community, find that a large measure of the management of student affairs is in their own hands. The student body elects representatives to the Student Senate and students actively participate in the maintenance of the discipline that is essential in an academic community, and share in the foundation of other College policies.

The first obligation for responsibility falls upon the student, who must devote the time to his/her academic commitments. A normal load of course work at Montcalm Community College requires 12 to 20 hours of attendance in lectures, recitations, laboratories, or seminars each week. To this must be added the hours of preparation for classwork, to make a total work week averaging 48 hours. The student is obligated to plan his/her time carefully to meet the level of accomplishment expected in his/her course work.

The College is well aware that the degree of intellectual capacity, social awareness and cultural appreciation by which the graduating student differs from the entering freshman is a result not only of the student's academic or vocational program but also of all the influences and activities that the student experiences while a member of the College community. This participation may encompass involvement in activities directly relating to the formation of College policies, academic concerns, procedural patterns, and social programs. Theatrical and musical organizations, various clubs and interest groups, and athletics add other dimensions to student development.

ORGANIZATIONS

The following extracurricular activities are normally available to interested students. It is common for new groups and organizations to be formed each year, and for some to become inactive, depending upon current student interest.

Archery	Choir	Stage Band
Bridge Club	Drama	Student Senate
Art Club	Intramurals	Veterans Club
Cheerleading	Ski Club	

STUDENT CONDUCT

Student life at Montcalm Community College is based on the broad principle of personal honor, and the College insists on high standards of honesty and considerate conduct from each of its students.

STUDENT CODE

Within the limitations which govern an ordered community, the College accords students freedom of inquiry, expression and action. Freedom is not to be interpreted as license, for a corollary of freedom is responsibility.

Citizenship in the Montcalm Community College plan involves respect for the dignity and rights of each individual, respect for public and personal property, and personal academic honesty. Since regulations are necessary in any community, guidelines have been established in the form of a Student Code which accords students the greatest possible freedom consistent with the welfare of fellow students and of the institution. Violation of the Code may result in dismissal from the College.



Photo - Greenville Daily News

Services for Students and Community

Financial Aid

The financial aid policy of Montcalm Community College reflects the desire of the College for a cosmopolitan student body of the highest possible promise. No student should fail to apply for admission to the College because of financial considerations.

In general, the College attempts to aid students with the most need first, recognizing both the needs and resources of the College and the needs of the individual applicant. Montcalm Community College is a member of the College Scholarship Service Assembly and subscribes to the principles of financial aid of the organization. Before any financial assistance can be given to a student, a Confidential Statement must be filled out and sent to the College Scholarship Service so a needs analysis can be determined.

The College believes in the self-help concept in financing the college education and assumes every family will make all reasonable sacrifices in financing their son's or daughter's education before applying to the College for assistance. The College awards the package form of financial aid, usually combining scholarships with grants, job, and/or loans to meet each student's need.

BASIC GRANT PROGRAM

The Basic Grant Program is one of the major new programs authorized by the Higher Education Amendments of 1972. The intent of this program is that every eligible student be entitled to Federal Grant assistance as a matter of right. To determine eligibility for this program, the student must fill out an Application for Determination of Basic Grant Eligibility. This form is readily available at colleges, high schools, public libraries and some other public offices.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

This Federal program of assistance is intended for students "who for lack of financial means of their own or of their families, would be unable to obtain such benefits without such a grant." The grants must be matched with assistance of an equal amount in a package which may include other grants, loans or college-sponsored employment.

WORK/STUDY

Priority in making this Federal program's award is given to those students having "greatest financial need." A number of on-campus and off-campus jobs are available to students enrolled and carrying at least six credit hours.

LOANS

The college has been approved by the Michigan Higher Educational Assistance Authority for participation in the financial aids program sponsored by the Michigan Legislature. Through this program, loans to individuals for higher education purposes are guaranteed by the Legislature which pays the interest charges during the time of college attendance. Several local Montcalm area banks are participants in the Authority and application for the MHEAA loans should be made directly with them. High school counselors and Montcalm Community College counseling staff have information regarding member banks.

In addition, the College is under the loan provisions of the National Direct Student Loan program. The National Direct Student Loan is a continuation of the National Defense Student Loan Program authorized by Title II of the National Defense Act of 1958. To be eligible for this loan, a student must demonstrate financial need through the College Scholarship Service and carry at least six credit hours.

BOARD OF TRUSTEES SCHOLARSHIPS AND ASSISTANTSHIPS

1. A minimum of two full tuition and fees scholarships and one per each fifty graduates or fraction thereof over 100 are awarded per area high school to students who have demonstrated outstanding academic and citizenship ability during their high school years.
2. Two full tuition and fees scholarships, one to a student pursuing a vocational curriculum and one to a student pursuing an academic program, are presented to students from each of seven area high schools.
3. One full tuition and fees Basic Education Scholarship per area high school is awarded to students having a less than satisfactory academic record and desire to attempt college level work.
4. Twenty full tuition athletic scholarships are awarded to students of the area high schools; no more than ten of which shall be for students of either sex.
5. Two full tuition and fees Adult High School Scholarships are awarded to students in each of the high schools in the Montcalm Community College District having a high school completion program for adults. The Scholarship is for seven semester credit hours to be used the following school year. Scholarship recipients are selected by the Area High School Community Education Director.
6. Seven full tuition Performing Arts-Music Scholarships are awarded to students of the area high schools.
7. Ten full tuition Assistantships are awarded to resident, full-time students.
8. Thirty full tuition Instructional Scholarships are awarded to full-time resident MCC students.
9. Persons who are residents of the MCC district, and who are sixty years of age or older, may enroll in college credit classes without paying any tuition. Only the minimal fees will be charged.

LOCAL AND MICHIGAN COMPETITIVE SCHOLARSHIPS

The Michigan Higher Educational Assistance Authority program also provides for a program of scholarships (Michigan Competitive) for which the College has been declared a participating institution. Students taking the qualifying examination may designate Montcalm Community College as the institution at which their scholarships will be used.

A number of local scholarships are offered each college year. Some of these scholarships do not require a Confidential Statement to be on file. Contact the Financial Aid Office to inquire about these scholarships. Groups showing particular interest in helping area students attend Montcalm Community College include:

Alyce Ann Beckmeyer Scholarship
Alvin M. Bentley Foundation
Farm Bureau
Ferris Township Scholarship
Greenville Federation of Women
Greenville Chamber of Commerce
Greenville Lions Club
Greenville Junior Chamber of Commerce
Ore-Ida Foods, Inc.
Sidney Sportsmen's Club
Southside Child Study Club
Stan and Marion Kemp Scholarship
Stanton American Legion
United Memorial Hospital Guild
VFW Lester J. Sitts Post 5065 and
Auxiliary Academic Scholarship

Many new local scholarships are made available each year.



Guidance Services

The College Student Services are designed to aid the student in planning a realistic and constructive college life. The counseling staff attempts to consider the needs, priorities, and possibilities of each person. Efforts are constantly made to assure each student of his/her rights and obligations.

COUNSELING

Students will plan each semester's program with the assistance of the counseling staff, however, each student should become familiar with his/her curriculum requirements. Students planning to transfer should review the graduation requirements not only of Montcalm Community College but also of their intended transfer institution. Students are encouraged to discuss their program and vocational/technical goals with the counseling staff and members of the college faculty.

In addition to educational/vocational planning, the counseling staff looks forward to discussing with students the wide range of questions that probe all our lives: questions that tend to tilt life for us socially, personally or academically.

CAREER GUIDANCE

Career Guidance is provided at Montcalm Community College with specific emphasis on helping students develop an awareness of their abilities, interests, values and life style preferences that help them identify and utilize resources necessary for implementation of career plans. The college also offers career planning classes that are designed to develop skills and knowledge from which students may fulfill their needs in regard to career options. A career library offering information on occupations, decision making and career planning resources, and other career information is also available.

SPECIAL NEEDS

A special needs program is available for students who, for a variety of reasons, find themselves in need of supplemental assistance. Developmental reading skills and tutorial services are the two main components of this program. Veterans should also keep in mind that their G.I. Bill benefits will allow tutoring in addition to their regular financial entitlements. Students may contact a counselor for this service or may be referred by an instructor.

PLACEMENT

The College employs a Placement Counselor whose primary task is to assist students completing training at M.C.C. in finding suitable employment. Students should register with the Placement Counselor for quick reference to prospective employers. The Placement Counselor also assists students in proper transfer to other training institutions.

A library of college catalogs is available in the Counseling Office to assist counselors and students in planning proper transfer to four-year institutions.

Community Services

The Community College concept is based upon the LIFETIME learning philosophy. Through its community offerings, the college offers a variety of services beyond its well established degree and certificate programs. Montcalm Community College provides for self-improvement and community development involving the economic, social and political life of the community.

SHORT COURSES AND CULTURAL ACTIVITIES

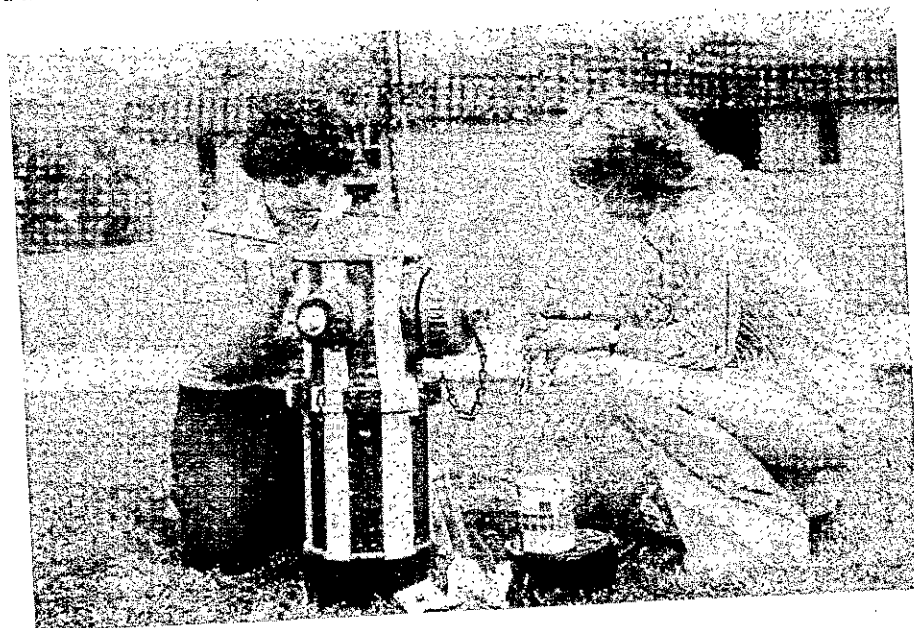
Short courses, conferences, workshops, cultural enrichment activities, exhibits, community chorus, and a community outreach program are offered by Montcalm Community College. Other activities include a speakers bureau, public forums on issues, radio programs, services to senior citizens, Manpower Development Training and liaison with the Community agencies and organizations.

CAMPUS TOURS AND THE USE OF COLLEGE FACILITIES

Campus tours and use of college facilities are encouraged. These activities are scheduled through the Office of Student and Community Services.

CAREER INFORMATION, TESTING AND COUNSELING FOR ADULTS

Montcalm Community College recognizes the fact that the people, whether they are twenty, forty or sixty years of age, who wish to continue their education may have questions about their abilities or about the educational or occupational avenues open to them. In response to this need the college makes available a variety of testing instruments, a well stocked career information library and the assistance of trained counselors.

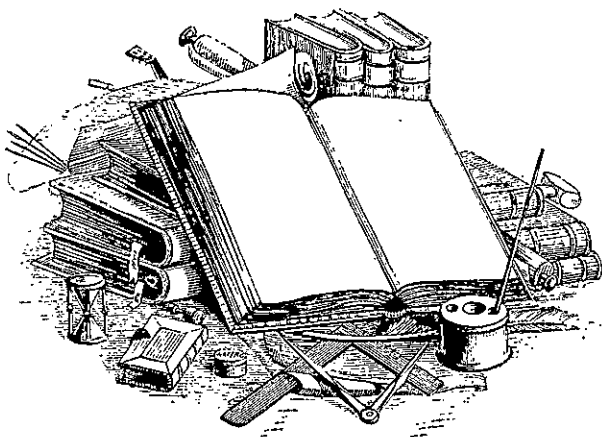


Learning Resources Center

The Learning Resources Center is the central study and research area of the college. The collection of books and other materials was started in 1966. At the present time, the materials collection includes 18,000 volumes of books, more than 200 periodicals, a number of national and local newspapers, back issues of needed journals on microfilm, and several hundred disc and tape recordings.

Physical facilities provide for individual study carrels, group seating, conference rooms, for both group and individual study, and a microfilm viewing room.

It should be noted that the use of the materials and facilities is not limited to only students and staff of the college, but that area residents are also encouraged to make use of what the Learning Resources Center has to offer.



COPE



College Opportunity - Prison Extension

Many MCC students do not attend classes on the Sidney campus. These are "full-fledged" college students, but they temporarily reside within the walls of two state prisons in Ionia. Currently, COPE students make up over one fourth of the total college enrollment.

Recognizing these men as potential students, MCC began offering credit courses in the Michigan Reformatory in 1968. Since that early beginning the prison program has grown to include hundreds of COPE students served by a full-time staff which provides program coordination, academic and placement counseling, and library assistance.

Regular college faculty and adjunct teachers from area institutions currently staff over 120 classes per year at the Reformatory and the medium security Michigan Training Unit. The COPE schedule of courses enables students to pursue an Associate Degree or one of several vocational/technical degrees or certificates.

The goal of the COPE staff is to live up to the meaning implied in the acronym, to help these men cope with the difficult futures they face. Cooperation from the Corrections Department, support from political leaders, and HEW Title III funding contributes to the realization of this intent.

Instructional Information

Montcalm Community College programs offer several alternatives.

1. Two years of study which are transferable to four-year colleges and continued study toward a bachelors degree.
2. Specialized career training which provides for immediate entry into a specific occupation. Credits earned in two-year occupational programs are transferable to some college four-year degree programs.
3. Courses for personal enrichment and career development.

General Education

A group of inter-disciplinary general education courses provide insight into the areas of Communication, Natural Science, Social Science, and the Humanities. MCC expects that all graduates in degree programs be proficient in these areas. This general education requirement will better equip graduates to be intelligent citizens of a complex world, to continue learning beyond completion of the degree, and to proceed through advanced study toward additional degrees.

Degrees Offered

Associate in Arts and Sciences

The following courses are required for all students pursuing the Degree of Associate in Arts and Sciences:

Course Title	Course No.	Semesters	Credit Hours
Man's Communication	LA100-101	2	6
*Man's Biological & Physical World	NS100-101	2	8
Man's Social World	SS100-101	2	8
Man's Creative World	HU200-201	2	8
Contemporary Problems	SS200-201	2	2
Total General Education Credits			32

**Students with significant science backgrounds may take alternate science courses. See the counselor concerning the science requirements for your program.*

In addition to the above required general education courses, the student may complete the degree requirements of twenty-eight additional hours by selecting elective courses from the academic or vocational/technical areas. Sixty (60) semester credit hours are required for graduation.

Associate in Applied Arts and Sciences

The Degree of Associate in Applied Arts & Sciences differs from the Associate in Arts & Sciences in two major ways:

1. Fewer general education courses are required.
2. Program requirements are clearly defined and total minimum credit hours vary with the program.

General Education Requirements

Course Title	Course No.	Semesters	Credit Hours
Man's Communication	LA100-101	2	6
*Man's Social World	SS100-101	2	8
Contemporary Problems	SS200	1	1
Minimum General Education Credit Hours			15

**Student may elect to substitute one of the following for SS100: NS100 or 101, HU200 or 201.*

To complete the requirements, the student must follow the prescribed curricula for the program selected. Minimum credit hours for graduation vary with each curricula and must be strictly observed. The student should refer to curricula outlined on the following pages.

Associate in General Studies

This degree will provide students the opportunity to be directly involved in planning their curriculum, by allowing them to choose courses which will meet their individual needs. Dependent upon the courses selected, credits may or may not transfer to four-year colleges or universities. The fulfillment of course requirements for this degree must be approved by the Dean of Student and Community Services.

- Degree requirements include the following:
1. A total of sixty semester hours of credit in academic, vocational/technical or community education.
 2. Fifteen hours of academic credit from at least three academic departments (LA, MA, SS, NS or HU).
 3. SS101 or SS240 (state requirement).

Programs of study

The programs of study on the following pages are the basis for awarding of the Degree or Certificate and should be carefully reviewed and understood.

Academic/Liberal Arts
 Apprentice Training
 Automotive & Diesel Maintenance
 Aviation Maintenance Technology
 Mid-Management/Business
 Practical Nursing
 Residential Construction
 Secretarial Science
 Welding Practices



Academic Liberal Arts

A broad Liberal Arts curriculum provides the opportunity to complete the equivalent of two years of study toward a four-year college degree. In addition to the Humanities, Language Arts, Mathematics, Natural Science and Social Science, students wishing to concentrate in Human Services, Corrections, Social Services and Education should meet with a counselor to select the proper specialized courses. Students with aspirations toward a bachelors degree should discuss course selections with counselors to insure maximum transfer of credits to a four-year college.

Required Courses

LA100	3
LA101	3
NS100	4
NS101	4
SS100	4
SS101	4
HU200	4
HU201	4
SS200	1
SS201	1
	<hr/>
	32



Photo - Greenville Daily News

MCC's fifth annual outdoor education trip to the Wilderness Park at the Straits of Mackinac.



Photo - Greenville Daily News

Apprentice Training

Admission into the apprenticeship training program is gained by way of employment and/or sponsorship by the employer and contingent upon the development of 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.

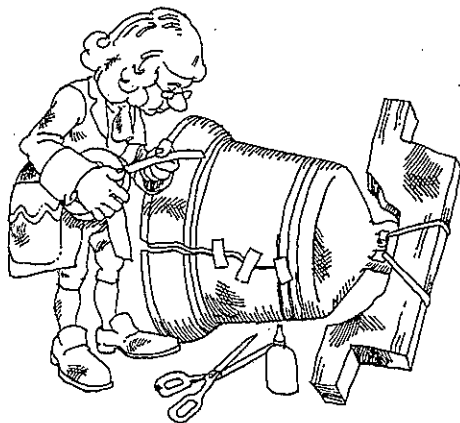
The semester in apprentice related instruction is 17 weeks in length with the trainee usually taking two 2-credit hour courses per semester. A competency examination may result in waiver of a required course. Official transcripts may also be used.

Entrance requirements are established by the employer in accordance with existing BAT standards. Continuation of the training program is contingent upon employment status and/or related instruction level of achievement.

Apprenticeship training is presently established for the Tool & Die Maker and Machinery Repairman Trades. Other apprenticeship trades may be pursued providing suitable training plans are established.

RELATED INSTRUCTIONAL COURSE OF STUDY (Total Clock Hours - 672)

Courses	Clock Hours	Courses	Clock Hours
AP100	Machine Tool Operations Theory 42	AP130	Metallurgy & Heat Treatment 36
AP105-106	Blueprint Reading 72	AP135-138	Tool & Die Design (Sht. Metal) or 168
AP110-113	Shop Mathematics 138	AP140-143	Tool & Die Design (Plas. Mold) 42
AP115	Strength of Mat. & Hydraulics 42	AP145	Use of Machinist's Handbook 30
AP120	Shop Drawing 36	AP150	Social Economics 18
AP125	Welding Theory and Practices 48	AP155	Safety & First Aid 18



Automotive & Diesel Maintenance (81 credit hours required)

The Automotive Maintenance Mechanics curriculum provides for the development of the skill and knowledge essential in the performance of the inspection, diagnosis, repair and adjustments of automotive vehicles and Diesel engines. A thorough understanding of the technical principles of operation and maintenance procedures of the modern automobile, its components and accessories is developed through classroom study and intensified live laboratory experience. Included in the program is a study of the Diesel engine and its special properties with the emphasis on maintenance, servicing, diagnosis and repair of Diesel component parts and accessories. Laboratory instruction is performed on modern equipment and live training units.

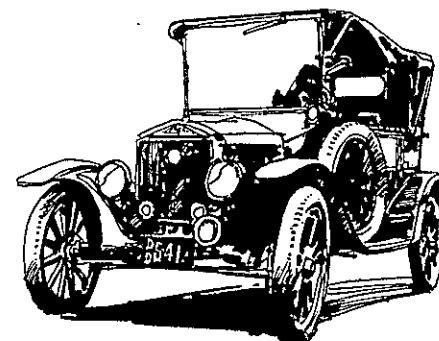
ASSOCIATE IN APPLIED ARTS & SCIENCE - The following courses are required in addition to the 15 hours of General Education requirements on page 23.

FIRST YEAR

First Semester	Credit Hours	Second Semester	Credit Hours
AM130	Automotive and Diesel Engines, Clutches and Manual Transmissions 11	AM131	Automotive Fuel, Ignition and Emission Control Systems 11
VE110	Shop Mathematics 3	AM110	Automotive Drawing and Blueprint Reading 3
VE250	Basic Electricity 3	VE253	Hydraulics & Fluid Power 3
	17		17

SECOND YEAR

Third Semester	Credit Hours	Fourth Semester	Credit Hours
AM230	Automotive Chassis and Automatic Transmissions 11	AM235	Diesel Engines and Auxiliary Systems 11
AM232	Parts Management 2	AM233	Service Management 2
WE110	Related Welding Skills 3	AM231	Automotive Air Conditioning and Adv. Emission Control Systems 3
	16		16



Automotive & Diesel Maintenance Mechanics

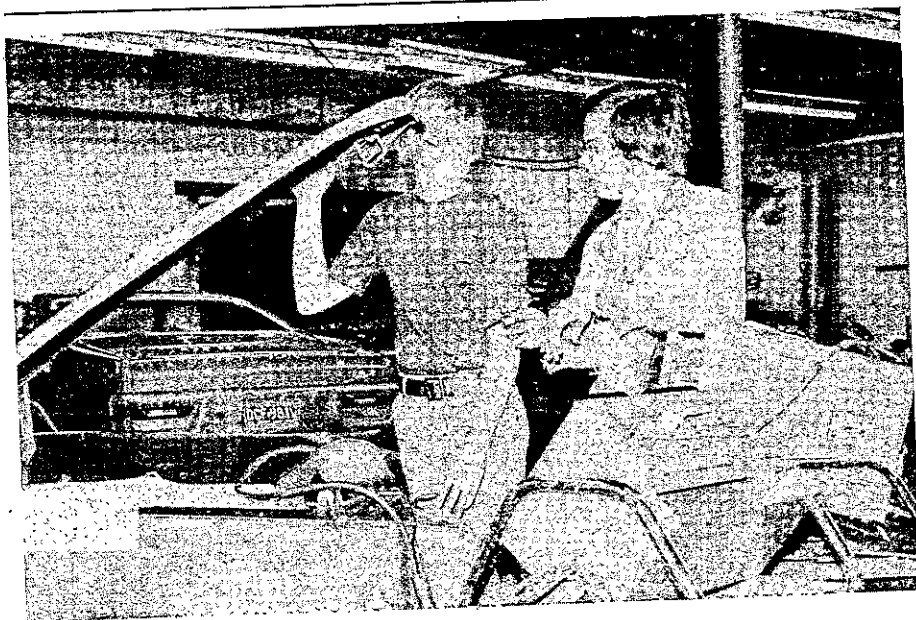
Two-Year Certificate of Achievement
(71 credit hours required)

FIRST YEAR

		Credit Hours			Credit Hours
First Semester			Second Semester		
AM130	Automotive and Diesel Engines, Clutches and Manual Transmissions	11	AM131	Automotive Fuel, Ignition and Emission Control Systems	11
VE110	Shop Mathematics	3	AM110	Automotive Drawing and Blueprint Reading	3
VE250	Basic Electricity	3	VE253	Hydraulics & Fluid Power	3
		17			17

SECOND YEAR

		Credit Hours			Credit Hours
Third Semester			Fourth Semester		
AM230	Automotive Chassis and Automatic Transmissions	11	AM235	Diesel Engines and Auxiliary Systems	11
AM232	Parts Management	2	AM233	Service Management	2
VE100	Vocational Communications	3	AM231	Automotive Air Conditioning and Adv. Emission Control Systems	3
WE110	Related Welding Skills	3	VE102	Technical Writing and Speaking	2
		19			18



Assistant, Doug Brown, with automotive student

Aviation Maintenance Technology

(89 credit hours required)

The Aviation Maintenance Technician Program is designed to provide the skill and knowledge necessary to meet the requirements for the Federal Aviation Administration Mechanics Licenses with the Airframe and Powerplant (A & P) Ratings. This 72-week program of studies is structured to provide the required 1900 clock hours of classroom and laboratory training in compliance with FAA regulations. Enrollment in this program is limited and selection of qualified students may be based upon academic record, background of experience, and/or proficiency examination. The required courses are presented here in a suggested schedule form and beginning students should follow this schedule if possible. A Certificate is awarded upon successful completion of the program. A Mechanics License is awarded upon successful completion of FAA tests.

FIRST YEAR

		Credit Hours			Credit Hours
First Semester			Second Semester		
Clock Hrs.			Clock Hrs.		
AV101	30 Introduction to Aviation	1	AV211	120 Aircraft Recip. Eng. Overhaul	5
AV105	75 Basic Science	3	AV212	90 Aircraft Eng. Ignition Systems	4
AV201	120 Aircraft Reciprocating Engines	5	AV213	120 Eng. Fuel & Induction Sys.	5
AV203	120 Engine Electrical Systems	5	AV214	60 Turbine Engines	3
AV204	60 Engine Lubrication Systems	3	390		17
AV205	45 Aircraft Drawings	2			
		19			

SECOND YEAR

		Credit Hours			Credit Hours
Third Semester			Fourth Semester		
Clock Hrs.			Clock Hrs.		
AV102	75 Airframe Nonmetal Structures	3	AV111	60 Airframe Assem. and Rigging	3
AV103	150 Airframe Sheet Metal Structures	6	AV112	150 Hydraulic and Pneumatic Sys.	6
AV104	60 Aircraft Welding	3	AV113	105 Aircraft Electrical Systems	4
AV116	105 Materials and Processes	4	AV114	120 Aircraft Instru. & Controls	5
AV202	75 Metal Processing	3	AV115	75 Aircraft Fuel Systems	3
		19	510		21

SECOND YEAR

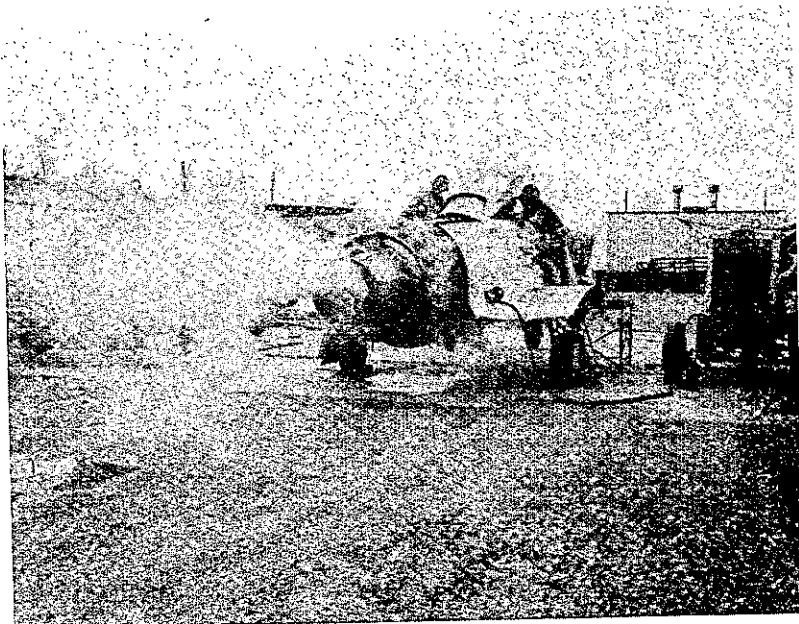
Summer Semester (12 week session)

		Credit Hours
Clock Hrs.		
AV215	90 Aircraft Propellers	4
AV216	105 Aircraft Servicing	5
AV217	45 Weight and Balance	2
AV218	30 FAA Review	2
		13



Instructor, Jesse Fox, with aviation students

AVIATION MAINTENANCE TECHNOLOGY



Aviation students working on a jet engine

Mid-Management Program

Job entry into the environment of Business is continually requiring a higher level of preparation. These curriculums are prepared to provide the necessary qualifications for entrance above the lowest managerial levels and for advancement to the highest managerial levels. The student is provided with the necessary business skills as well as the theoretical and practical applications of business and industrial management. These are Associate Degree programs and it is possible for the student to concentrate in the following areas: Accounting, Finance, Manufacturing and Retailing. It is *important* that a student meet with a counselor to plan the proper sequences of courses for each of the above areas.

REQUIRED COURSES FOR EACH CONCENTRATION

		Credit Hours			Credit Hours
BE115	Accounting I	3	LA100	Man's Communication	3
BE116	Accounting II	3	LA101	Man's Communication	3
BE120	Business Math	4	SS100	Man's Social World	4
BE200	Business Law I	3	SS101	Man's Social World	4
BE237	Management	3	SS200	Contemporary Problems	1
					31

Accounting

(62 credit hours required)*

REQUIRED ACCOUNTING COURSES				Credit Hours	Credit Hours
BE100	Beginning Typing	3	BE246	Tax Accounting	3
BE201	Business Law II	3	BE250	Personnel Relations	3
BE215	Cost Accounting I	3	LA210	Speech	3
BE216	Cost Accounting II	3	SS215	Principles of Economics	3
BE240	Business Machines	4	SS220	General Psychology	3
					31

**It is important that a student wishing to concentrate in the above area meet with his/her counselor. These courses must be taken in the proper sequence.*

Finance

(62 credit hours required)*

REQUIRED FINANCE COURSES		Credit Hours
BE135	Introduction to Business	3
BE201	Business Law II	3
BE238	Money and Banking	3
BE252	Financial Principles	3
BE253	Principles of Investment	3
BE268	Credits and Collections	3
		<u>18</u>

*It is important that a student wishing to concentrate in the above area meet with his/her counselor. These courses must be taken in the proper sequence.

A total of 10 credit hours are required from this group.

GENERAL EDUCATION ELECTIVES		Credit Hours
LA210	Speech	(3)
SS215	Principles of Economics	(3)
SS240	Political Science	(3)
		<u>3</u>

A total of 3 credit hours are required from this group.

Manufacturing

(62 credit hours required)*

REQUIRED MANUFACTURING COURSE		Credit Hours
BE135	Introduction to Business	3
BE236	Production Management	3
BE250	Personnel Relations	3
BE255	Purchasing	3
BE273	Industrial Relations	3
BE278	Production and Quality Control	3
		<u>18</u>

*It is important that a student wishing to concentrate in the above area meet with his/her counselor. These courses must be taken in the proper sequence.

A total of 10 credit hours are required from this group.

GENERAL EDUCATION ELECTIVES		Credit Hours
LA210	Speech	(3)
SS215	Principles of Economics	(3)
SS240	Political Science	(3)
		<u>3</u>

A total of 3 credit hours are required from this group.

Retailing

(65 credit hours required)*

REQUIRED RETAILING COURSES		Credit Hours
BE135	Introduction to Business	3
BE233	Merchandising I	3
BE234	Merchandising II	3
BE248	Advertising	3
BE250	Personnel Relations	3
BE265	Sales Management	3
BE268	Credits and Collections	3
		<u>21</u>

*It is important that a student wishing to concentrate in the above area meet with his/her counselor. These courses must be taken in the proper sequence.

A total of 10 credit hours are required from this group.

GENERAL EDUCATION ELECTIVES		Credit Hours
LA210	Speech	(3)
SS215	Principles of Economics	(3)
SS240	Political Science	(3)
		<u>3</u>

A total of 3 credit hours are required from this group.



Practical Nursing

(49 credit hours required)

After completion of this forty-two week program, students are qualified to take the Michigan Board of Nursing Examinations to become licensed to practice. This program is conducted with the approval of the Michigan Board of Nursing.

Montcalm Community College is affiliated with three area hospitals. They are United Memorial Hospital in Greenville, Carson City Hospital, and Kelsey Memorial Hospital in Lakeview. Each student will spend time at each hospital for specific clinical experience.

The student will also be exposed to public health nursing in cooperation with the Mid-Michigan District and Ionia County Health Departments.

Requirements for Admission:

1. Applicants must be 17 years old. The usual maximum age is 55. All applicants will be considered individually.
2. All applicants must be high school graduates, or the equivalent. Applicants without high school diplomas must pass the GED test, equivalent to the 12th grade level.
3. All applicants are required to be in good physical and mental health, within normal weight for height and age. Physical, dental and x-ray examinations are done by own physician and dentist.
4. Applicants are required to take the PSB screen battery which is scheduled through the Student and Community Services Office.
5. All applicants must schedule a personal interview with the Director of Nursing or a member of the nursing staff.

First Semester (pre-clinical)		Credit Hours	Second Semester		Credit Hours
PN100	Nursing Foundations I	7	PN200	Maternal and Child Health	3
PN110	Food in Health and Disease	2	PN210	Nursing Foundations II	7
PN120	Personal and Environmental Health	2	PN220	Medical-Surgical Nursing	7
PN130	Body Structure and Function	7	PN225	Mental Health	1
PN140	Human Growth and Behavior	3			18
		21			

Clinical practice takes place the first semester. However, the main emphasis is on classroom studies.

The student will have more clinical experience and fewer formal classes.

Summer Semester

PN230	Pharmacology	6
PN240	Nursing III	4
		10

The student will have full-time clinical experience.

Residential Construction Technology

(34 credit hours required)

Demands for well trained trades people in construction are continuing. Methods of construction as well as materials used are continuously changing as the technology of construction expands.

Upon successful completion of the program, the student will attain job entry skills for the Construction Trades. Students will construct on site a residence in its entirety as part of the training program.

Fall Semester		Credit Hours	Spring Semester		Credit Hours
RC120	Construction I	12	RC121	Construction II	12
RC110	Construction Methods & Materials I	3	RC111	Construction Methods & Materials II	3
Elective from RC115, RC130, RC161, RC170		2	Elective from RC160, RC180, RC290, RC292		2
		17			17



Residential Construction program in action

Secretarial Sciences



Executive Secretary

(67 credit hours required)

The graduate of the Executive Secretarial Science curriculum will have (1) a knowledge of business technology, and (2) a 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 and transcribing, is responsible for meeting office callers, screening telephone calls, and assisting the executive. An Associate Degree will be awarded upon successful completion of this program.

ASSOCIATE IN APPLIED ARTS & SCIENCES - The following courses are required in addition to the 15 hours of General Education requirements on page 23.

REQUIRED BUSINESS COURSES		Credit Hours	REQUIRED BUSINESS COURSES		Credit Hours
*BE101	Intermediate Typing	3	BE130	Business Correspondence II	3
BE202	Advanced Typing	3	BE230	Typing & Office Practice	3
*BE104	Intermediate Shorthand	4	BE117	Clerical Accounting	3
BE203	Advanced Shorthand	4	BE200	Business Law	3
BE120	Business Math	4	BE240	Business Machines	4
BE135	Introduction to Business	3	BE250	Personnel Relations	3
BE129	Business Correspondence I	3	BE280	Introduction to Electronic Data Processing	3
					<u>3</u>
					46

*Students without high school typing and shorthand must take BE100 and BE103 before placement in these courses.

RELATED COURSES		Credit Hours
VE290	Field Experience Co-Op I	3
VE291	Field Experience Co-Op II	3
or		<u>6</u>
Academic and Business electives from LA210, SS215, LA160, BE237 or BE225		



Stenographer

(34 credit hours required)

This curriculum is planned for the high school graduate who has majored in business and desires advanced studies to perfect skills, but who can spend only one year in college. A student who had little or no previous business training and can spend only one year in college may also wish to follow this curriculum. This is a one-year Certificate program.

Upon completion of this one-year intensive business program, a certificate of achievement will be awarded. The student may also elect to continue for the Associate Degree, completing the academic and remaining business education requirements his/her second year.

First Semester		Credit Hours	Second Semester		Credit Hours
BE101	Intermediate Typing	3	BE202	Advanced Typing	3
BE104	Intermediate Shorthand	4	BE203	Advanced Shorthand	4
BE120	Business Mathematics	4	BE130	Business Correspondence II	3
BE117	Clerical Accounting	3	BE230	Typing & Office Practice	3
BE200	Business Law	3	BE240	Business Machines	4
		<u>17</u>			<u>17</u>



Clerk-Typist

(32 credit hours required)

The demand for skilled and well-qualified personnel is rapidly expanding. The objective of the Clerk Typist curriculum is to prepare persons of any age 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 on routine office functions. Previous training in typing is desirable. A certificate will be awarded upon successful completion of the program requirements. A student wishing to continue training may apply credits earned toward the degree program in Secretarial or Management programs.

First Semester		Credit Hours	Second Semester		Credit Hours
BE101	Intermediate Typing	3	BE202	Advanced Typing	3
BE120	Business Mathematics	4	BE130	Business Correspondence II	3
BE117	Clerical Accounting	3	BE230	Typing & Office Practice	3
BE135	Introduction to Business	3	BE250	Personnel Relations	3
BE129	Business Correspondence I	3	BE240	Business Machines	4
		<u>16</u>			<u>16</u>

Welding Practices

(37 credit hours required)

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 AWS Certification and receive the Certificate of Achievement upon successful completion of program requirements which follow.

First Semester		Credit Hours	Second Semester		Credit Hours
*WE100	Welding Fundamentals & Practices	11	*WE101	Advanced Welding	11
VE110	Shop Mathematics	3	VE100	Vocational Communications	3
VE104	Shop Drawing	2	VE102	Technical Writing & Speaking	2
VE253	Hydraulics & Fluid Mechanics	3	VE106	Blueprint Reading	2
		<u>19</u>			<u>18</u>

The student may elect to enroll in one or more advanced special welding courses to accomplish a greater in-depth study of a special technique or skill. The student may elect from the following:

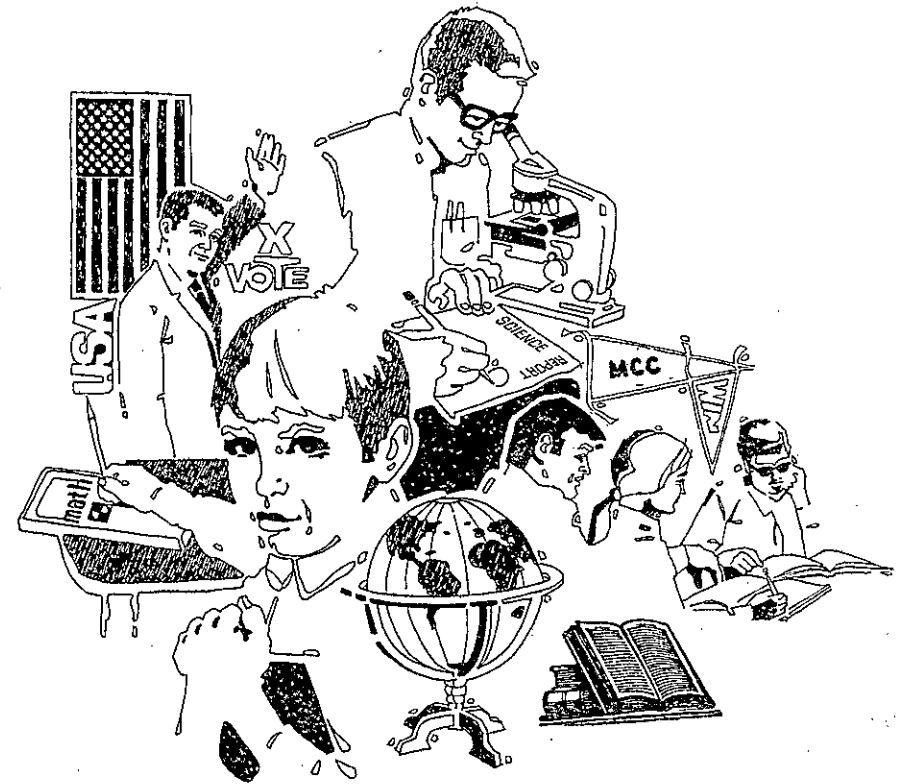
WE102.	Advanced Welding Laboratory I	(3)
WE103	Advanced Welding Laboratory II	(3)
WE104	Advanced Welding Laboratory III	(3)

**In lieu of WE100, WE110 a student may enroll in WE102, WE103, WE104 and WE110 and repeat these courses until necessary skills are developed and required credit hours are met.*



Welding program instructor, Hank Radtke

Course Descriptions



In this section descriptions of all courses offered at Montcalm Community College are given. These are listed alphabetically.

Numbers in the parenthesis () which follow course titles represent the total credits, hours of lecture/demonstration, and hours of laboratory in that order. (For example, {4,2,2} represents four semester hours of credit given for the course, two of the four hours will be lecture/demonstration, and two of the four hours will be laboratory-type classes.) In some cases the instructor may designate additional hours of laboratory as being necessary.

Apprentice Training

AP100 Machine Tool Operation Theory (2 credit hours, 42 clock hours)

A lecture course consisting of the definition, history, operation and application of the various tool room machines. Tool topics covered include lathe, shaper, horizontal and vertical mills and surface and pedestal grinding. Emphasis is also placed on specific and special operations of these machines.

AP105 Blueprint Reading I (2 credit hours, 36 clock hours)

This course covers the following: three view projections, line alphabet, location of dimensions, sketching, shop terminology, drafting terminology, tolerance, decimal and angular tolerances, machine operations, sectional drawing, thread representation, finished surfaces representation, auxiliary views, violations of theory of true projection, arrangements of view, scale drawing, phantom outlines, structural steel shapes, mechanical accessories, A.S.A. symbols, systems of drill sizes and gear formulas.

AP106 Blueprint Reading II (2 credit hours, 36 clock hours)

A continuation of AP105.

AP110 Shop Mathematics I (2 credit hours, 36 clock hours)

This course covers the study of properties of common fractions, analyzing decimals, square root, using formulas, understanding percentages, equations, measuring instruments, applied geometry, geometric construction and applications and logarithms. Also covered in this course are shop trigonometry, taper and tapering turning, screw threads, pulley and gear, applied mechanics and strength of materials, speed and feeds, gears, slide rule and milling machine indexing.

AP111 Shop Mathematics II (2 credit hours, 36 clock hours)

A continuation of AP110.

AP112 Shop Mathematics III (2 credit hours, 36 clock hours)

A continuation of AP111.

AP113 Shop Mathematics IV (2 credit hours, 36 clock hours)

A continuation of AP112.

AP115 Strength of Material and Hydraulics (2 credit hours, 42 clock hours)

Areas covered by this course are simple stresses, shear, riveted joints, stresses in thin-walled cylinders-weld torsion, seam-shear and moment diagrams, stresses in beams, beam deflection, combined axial bending stresses, columns and materials.

AP120 Shop Drawing (2 credit hours, 36 clock hours)

A condensed course covering the basic principles and techniques of shop drafting stressing the essentials as: lettering, instrument usage, technical terms, applied geometry, free hand sketching, orthographic auxiliaries and section drawings, dimensioning practices, detail and assembly drawing, conventions and standard drafting practices. Pictorial drawing and presentation of engineering data through the media of charts and graphs is also included.

AP125 Welding Theory and Practice (2 credit hours, 48 clock hours)

This course is a study of techniques and processes used to fabricate metal products by welding. Laboratory experiences include oxyacetylene welding and cutting, soldering and brazing, shielding metal-arc welding, inert-gas-shielded (mig-tig), and other special welding processes.

AP130 Metallurgy and Heat Treatment (2 credit hours, 36 clock hours)

Studied in this course are properties of metals and tests to determine their use, chemical metallurgy, producing iron and steel, physical metallurgy, shaping and forming of metals, properties and nonferrous alloys, study of properties of steel, surface treatments, power metallurgy, and classification of steels.

AP135 Tool and Die Design - Sheet Metal I (2 credit hours, 42 clock hours)

This course covers instruction on die design standards, solid and spring stripper drop through blanking die, inverted type blanking die, compound blank and pierce die, composite section blanking, solid forming dies, single and multiple pressure pad forming dies, and progressive type dies such as pierce, blank, notch, countersink, cutoff and form.

AP136 Tool and Die Design - Sheet Metal II (2 credit hours, 42 clock hours)

A continuation of AP135.

AP137 Tool and Die Design - Sheet Metal III (2 credit hours, 42 clock hours)

A continuation of AP136.

AP138 Tool and Die Design - Sheet Metal IV (2 credit hours, 42 clock hours)

A continuation of AP137.

AP140 Tool and Die Design - Plastic Mold I (2 credit hours, 42 clock hours)

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.

AP141 Tool and Die Design - Plastic Mold II (2 credit hours, 42 clock hours)

A continuation of AP140.

AP142 Tool and Die Design - Plastic Mold III (2 credit hours, 42 clock hours)

A continuation of AP141.

AP143 Tool and Die Design - Plastic Mold IV (2 credit hours, 42 clock hours)

A continuation of AP142.

AP145 Use of Machinists Handbook (2 credit hours, 42 clock hours)

This course includes: tables of squares, cubes, circles and logarithms, solution of triangles and trig tables, geometry, mechanics, wire and sheet metal gages, uses of iron and steel-heat treat and hardness, helical springs, and keys or keyways.

AP150 Social Economics (1 credit hour, 30 clock hours)

This course studies labor in our economy, including labor's obligations to the employer, the employer's obligation to the labor, services for employees, logic behind collective bargaining, the union contract and how labor unions operate. Covered under our economic system are competitive prices in action, capital equipment, wages, profit, and money and banking. Also included in this course are business cycles, circular flow of money, problems of instability, inflation and deflation, the role of the government in the economy, and the study of international trade.

AP155 Safety and First Aid (1 credit hour, 18 clock hours)

This course studies the "why and how of first aid." Subjects covered are wounds, common and special; shock, physical and electrical and heart attack; artificial respiration, injuries to bones, joints, and muscles of the human body and skeletal injuries; burns and ill effects of heat and cold; common emergencies, transportation, causes and industrial types of accident prevention; and first aid kits and supplies.

Automotive Mechanics

AM110 Drawing and Blueprint Reading (3,1,2) Spring Semester

This course reviews the basic fundamentals of all projections, lettering, sketching and dimensioning. A thorough study of blueprint reading as it relates to assembly, service parts replacement and service adjustment is covered.

AM130 Automotive and Diesel Engines, Clutches and Manual Transmissions (11,4,12)

This course covers instruction in theory, laboratory procedures, diagnosis and operations for automotive and Diesel engines, clutches and manual transmissions. Shop work consists of the overhaul or rebuilding of engines, clutches and manual transmissions. All popular engines are covered, including the study of the gas turbine and the Wankel engine.

AM131 Automotive Fuel, Ignition and Emission Control Systems (11,4,12) Spring Semester

This course is designed to develop the student's abilities as a diagnostician or tune-up man. Diagnosis is stressed on actual problems. The student receives an in-depth study of fuel, carburetion, starting, charging, standard ignition, electronic ignition and emission control systems.

AM230 Automotive Chassis and Automotive Transmissions (11,4,12) Fall Semester

This course covers front end alignment, brakes, steering, drive line, differentials and automatic transmissions. Laboratory experience involves diagnosis and repair on live late model units using latest methods on modern equipment.

AM231 Automotive Air Conditioning and Advanced Emission Control Systems (3,1,2) Spring Semester

The theory, servicing and diagnosis of automotive air conditioning units is covered in depth. Laboratory experiences are on live units using modern equipment in both areas. Advancements in emission controls are studied in depth as new systems are introduced.

AM232 Automotive Parts Management (2,2,0) Fall Semester

This course provides an in-depth study of the operation and management of the Automotive replacement parts section of the Automotive Trades. Familiarization with parts coding along with inventory control, pricing, and sales techniques constitutes a major part of the course. Included in the course are the fundamentals of bookkeeping and the handling of currency as it applies to parts management and sales. Parts coding systems and unique features of all major automobile manufacturers in the United States as well as popular foreign car makers will be included.

AM233 Automotive Service Management (2,2,0) Spring Semester

A comprehensive course in the management of the Service Department of the Auto Dealership or Service Garage. The major emphasis of the course will be on the accurate diagnosis of automobile defects, cost estimating, quality control, personnel management, scheduling, and customer relations. All aspects of service management will be explained and practiced through simulated and actual service procedures.

AM235 Diesel Engines and Auxiliary Systems (11,4,12) Spring Semester

This course is designed to furnish the student the necessary technical knowledge and the practical experience to service, repair and diagnose Diesel engines in the truck, farm or heavy equipment fields. Special emphasis will be placed on the fuel injection systems, governors, and turbo-charger. Prerequisites: AM130, AM131, AM230, AM110, VE250, WE110, VE253, VE110, (VE100 or LA100) or qualified work experience.



Automotive instructor, Dick Fox, testing diesel injectors with students

Aviation Mechanics

AV101 Introduction to Aviation (1,2,0)

An introductory course including aircraft nomenclature, theory of flight, and principles of aircraft maintenance and repair.

AV102 Airframe Nonmetal Structures (3,2,3)

This course studies the repair of wood structures, fabric coverings, and the application of aircraft finishes.

AV103 Airframe Sheet Metal Structures (6,4,6)

This course studies the repair of sheet metal structures, including various types of fasteners, plastics, honeycomb, and interior furnishings.

AV104 Aircraft Welding (3,1,3)

This course is designed to provide the student with skills for soldering, brazing, gas-welding, and arc-welding. It will also provide the student with an understanding of the procedures for welding magnesium and titanium.

AV105 Basic Science (3,3,2)

This course is designed to provide the student with a basic understanding of electricity, physics, and basic mathematical skills.

AV111 Airframe Assembly and Rigging (3,2,2)

This course provides the student with an understanding of the method of assembly and rigging of both rotary-wing and fixed-wing aircraft, including alignment of structures and the balancing of movable surfaces. Prerequisites: AV101, AV105.

AV112 Hydraulic and Pneumatic Systems (6,4,6)

This course is designed to provide the student with an understanding of hydraulic and pneumatic power systems and components, including a study of landing gear systems.

AV113 Aircraft Electrical Systems (4,3,4)

This course will provide the student with an understanding of aircraft electrical system operation and the repair of electrical system components. Prerequisite: AV105.

AV114 Aircraft Instruments and Controls (5,4,4)

This course includes the study of cabin atmosphere control systems, instrument systems, communication and navigation systems, and position and warning systems. Prerequisites: AV101, AV105.

AV115 Aircraft Fuel Systems (3,2,3)

This course is a study of aircraft fuel system requirements, fuel systems, fuel system components, and the repair of fuel systems and their components.

AV116 Materials and Processes (4,2,5)

This course includes the study of nondestructive testing methods, heat-treating processes, aircraft hardware, and methods of cleaning and controlling corrosion.

AV201 Aircraft Reciprocating Engines (5,4,4)

This course studies the aircraft piston type engine including the engine parts and their function. The course will also study engine displacement, compression ratio, and horsepower.

AV202 Metal Processing (3,2,3)

This course includes a study of hand and power tools used in shaping and processing of metal.

AV203 Engine Electrical Systems (5,4,4)

This course studies the engine's electrical system, its components, and the repair of those components. The course also studies engine instrument systems and fire protection systems. Prerequisite: AV105.

AV204 Engine Lubrication Systems (3,2,2)

This course studies the source of lubricants, their use, and engine lubricating systems.

AV205 Aircraft Drawings (2,1,2)

This course will include the study of basic drawing procedures, making sketches, and reading blueprints, graphs and charts.

AV211 Aircraft Reciprocating Engine Overhaul (5,3,5)

This course studies the overhaul procedures for conducting a major overhaul on a reciprocating engine and the procedures for removing and reinstalling an engine on an aircraft. Prerequisites: AV201, AV204.

AV212 Aircraft Engine Ignition Systems (4,2,4)

This course studies the operating principles of the aircraft magneto, its overhaul and the repair and replacement of ignition harness. Prerequisites: AV105.

AV213 Engine Fuel Induction Systems (5,3,5)

This course studies the operation and overhaul of float carburetors, pressure carburetors and fuel injection systems. The student will also study engine fuel systems, induction systems, including superchargers, engine cooling systems and engine exhaust systems. Prerequisite: AV105.

AV214 Turbine Engines (3,2,2)

This course is designed to provide the student with a basic understanding of the theory of operation, disassembly and reassembly of jet engines as well as operating procedures and troubleshooting practices.

AV215 Aircraft Propellers (4,2,4)

This course includes a study of the operation and repair of fixed pitch, constant speed and feathering propellers.

AV216 Aircraft Servicing (5,2,5)

This course studies the requirements for making an airframe and powerplant conformity and airworthiness inspection. The course also includes instruction in ground operations, servicing, maintenance forms and records, maintenance publications, and mechanics privileges and limitations. Prerequisites: All AV courses except AV215, AV217 and AV218.

AV217 Weight and Balance (2,1,2)

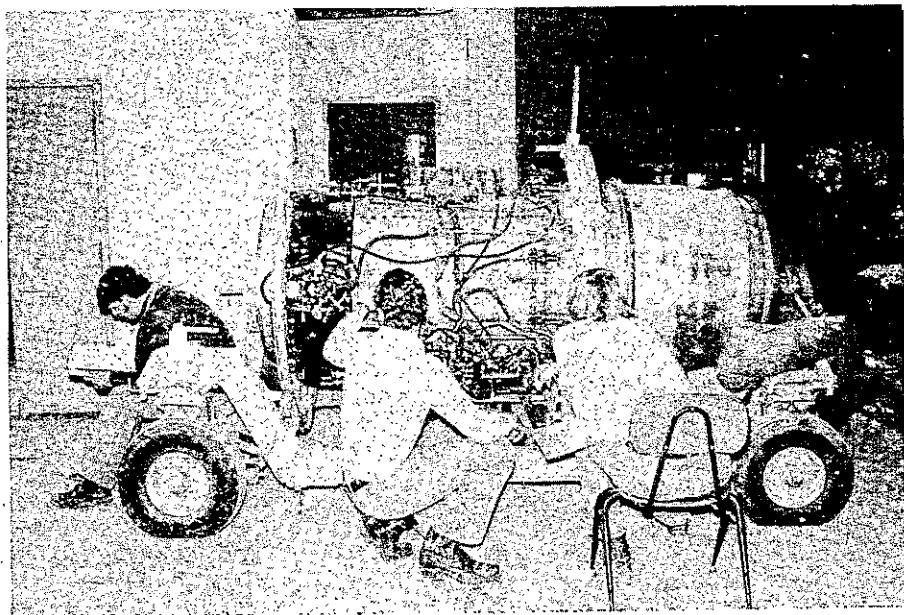
This course studies the proper procedures for weighing an aircraft, finding the center of gravity and the movement of the center of gravity with changes in loading. Prerequisite: AV105.

AV218 FAA Review (2,2,0)

This course is a review of all previously taught subjects designed to prepare the student to take the FAA written, oral and practical examinations for both the airframe and powerplant mechanics licenses. Prerequisites: All AV courses except AV215, AV216 and AV217.

AV250 Pilot Ground School (3,3,0)

This course provides the student with information regarding pre-flight planning, airplane systems, airports, communications, air traffic control, weight and balance, meteorology, Federal Aviation Regulations, the Airman's Information Manual, the use of the flight computer, basic navigation, radio navigation and medical facts of flight. Successful completion of this course should be very helpful in taking the FAA pilot's written exam.



Aviation students studying the fuel feed system of a jet engine.

Business Education

BE100 Beginning Typing (3,1,3)

This is an introduction to and a mastery of the typewriting keyboard. Personal and business letters, elementary tabulation, simple outlines, and manuscript writing are included.

BE101 Intermediate Typing (3,1,3)

The writing of business letters with practice in proofreading, tabulation, special communication forms and reports, application and employment procedures. Prerequisite: BE100 or equivalent.

BE103 Beginning Shorthand (4,3,2)

A course in the elementary principles of Gregg Shorthand. Prerequisite: BE100 or equivalent.

BE104 Intermediate Shorthand (4,3,2)

Intensive training in theory of shorthand, the development of shorthand outlines, and development of the ability to take new matter dictation.

BE115 Accounting I (3,3,0)

An introduction to accounting and fundamentals; 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 are examined.

BE116 Accounting II (3,3,0)

The valuation of receivables and merchandise inventory, valuation of fixed assets and depreciation, accounting for taxes, payroll, property, and sales tax are covered. An introduction to corporation and cost accounting are included. Prerequisite: BE115 or equivalent.

BE117 Clerical Accounting (3,3,0)

This course, designed primarily for students on a secretarial/clerical program, covers the basic terminology and fundamental principles of accounting. Most of the emphasis is on the practical business application of the materials covered, with major consideration given to the preparation of accounting statements, balance sheet and income statement.

BE120 Business Mathematics (4,4,0)

This course reviews fundamental arithmetic processes and their business applications and includes cash and trade discounts, mark-ups, depreciation and interest, and payroll deduction.

BE122 Financial Math (3,3,0)

This course covers simple and compound interest; ordinary and deferred annuities, and perpetuities; amortization and depreciation; bonds and insurance.

BE129 Business Correspondence I (3,3,0) Fall Semester

The basic communication skills are developed through a review of language structure. Attention is given to grammar, English for business use, vocabulary, punctuation, capitalization, and numbers.

BE130 Business Correspondence II (3,3,0) Spring Semester

A study of effective correspondence in business. Prerequisite: BE100.

BE131 Report Writing (3,3,0) Spring Semester

The student is introduced to the what and why of business reports, problems and planning, research, organizing information, constructing and writing a report in an acceptable manner.

BE135 Introduction to Business (3,3,0)

The student is introduced to the environment, nature, and opportunities of business. Types of ownership are covered and the operation of business is investigated through marketing, location and layout, personnel, finance, and controls for decision making. The legal environment of business is also investigated.

BE200 Business Law (3,3,0) Fall Semester

Law and Society, the Uniform Commercial Code are considered with emphasis placed on the law of contracts, sales and real property. Case studies are used extensively.

BE201 Business Law II (3,3,0) Spring Semester

A continuation of BE200. Security devices, commercial paper and agency and employment are considered. Special emphasis is placed on corporate and partnership law.

BE202 Advanced Typing (3,1,3) Spring Semester

Continued speed-building techniques; advanced production typewriting techniques; skill in business letters, tabulations, manuscript writing, legal documents, and business forms. Prerequisite: BE101 or equivalent.

BE203 Advanced Shorthand (4,3,2) Spring Semester

Further development of the ability to write new matter dictation with increasing emphasis on speed and accuracy in transcription. Prerequisite: BE101 and BE104.

BE215 Cost Accounting I (3,3,0) Fall Semester

Cost information systems and accumulation procedures are considered. Planning and control of factory overhead; materials, and labor are considered along with other related costs. Prerequisite: BE116.

BE216 Cost Accounting II (3,3,0) Spring Semester

Planning for profits and sales and controlling of costs and profits are covered. Emphasis will be placed on cost and profit analysis. Prerequisite: BE215.

BE230 Typing and Office Practice (3,1,4) Spring Semester

A course in which subject matter and skill development are drawn together in practical application. Prerequisite: BE202.

BE233 Merchandising I (3,3,0) Fall Semester

The student is introduced to marketing with special emphasis upon retailing. Establishing, financing and organizing the new store and buying and selling with special attention given to promotion are major topics in the course.

BE234 Merchandising II (3,3,0) Spring Semester

A continuation of BE233 with emphasis placed upon control of the operation. Prerequisite: BE233 or equivalent.

BE235 Small Business Management (3,3,0) On Demand

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.

BE236 Production Management (3,3,0) Fall Semester

The management functions as applied to the production of products. The inputs of capital, labor, design, and purchasing are covered with emphasis upon the process including all types of control. Prerequisite: MA159 or equivalent.

BE237 Management (3,3,0) Fall Semester

This course treats all activities in the field of business. Each facet of business, such as ownership, organization, marketing, physical factors, purchasing, production, personnel, finance quantitative control, and government regulations. The development and installation of a total information system for managerial decisions is investigated.

BE238 Money and Banking (3,3,0)

The nature and origins of money and credit; the history of banking institutions, with emphasis upon the Federal Reserve System; along with statutory controls of money, credits, and banks are studied.

BE240 Business Machines (4,1,3)

A course designed to train the student in the fundamental process of key-driven calculators, adding-listing machines, rotary calculators, listing calculators, and ten-key machines. Prerequisite: BE120 or equivalent.

BE246 Tax Accounting (3,3,0) Spring Semester

Local, State and Federal taxes of sole proprietorships, partnerships, and corporations are considered. Tax practices and procedures relating to assessment and collection are also covered. Prerequisite: BE116.

BE248 Advertising (3,3,0) Spring Semester

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.

BE250 Personnel Relations (3,3,0) Spring Semester

This course covers the methods of selecting and training personnel, discipline problems, morale, wages, fringe benefits, promotions, separations, and other related areas.

BE252 Financial Principles (3,3,0)

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.

BE253 Principles of Investment (3,3,0)

The student is introduced to the securities market with special attention to corporate securities and financial policies. Limited income securities, common stock, and special classes of securities are covered. Security analysis and portfolio development policies are investigated. Prerequisite: BE135 or equivalent.

BE255 Purchasing (3,3,0)

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. Prerequisite: BE237.

BE265 Sales Management (3,3,0) Spring Semester

To provide the student with necessary background in organization, management, and operation of an effective sales force. The laws of effective selling are covered extensively.

BE268 Credits and Collections (3,3,0) Fall Semester

This course is designed to provide the student with understanding of basic credit principles. Use of credit as a tool, analysis of dealer's and individual'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 are covered.

BE273 Industrial Relations (3,3,0)

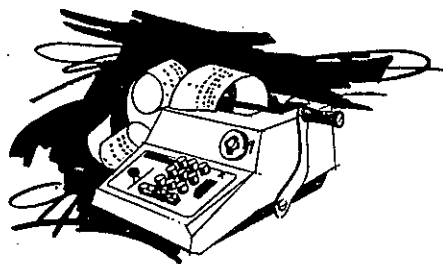
The components of personnel problems, supervision skills, organization, manpower, and employment development are investigated. Incentives and management responsibilities are covered also.

BE278 Production and Quality Control (3,3,0)

Organizing for production, intermittent and continuous production are studied. Control for job shops, repetitive production, continuous production, and automatic production along with mathematical methods for solving problems are covered. Prerequisite: BE236.

BE280 Introduction to Electronic Data Processing (3,2,1) Fall Semester

This course provides the student with a basic understanding of the procedures, uses and limitations of unit record data processing equipment as applied to various areas of business.



Foreign Languages

FL120 Elementary French (4,4,0)

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 (4,4,0)

A continuation of French 120. Prerequisite: FL120 or equivalent.

FL220 Intermediate French (4,4,0)

Prerequisite: French 121 or successful completion of two years of high school French. Advanced conversation and readings emphasize vocabulary building, French Syntax, aural comprehension and phonics.

FL221 Intermediate French (4,4,0)

Prerequisite: French 220. A continuation of French 220 with emphasis on gaining greater fluency through advanced French conversation and enrichment reading from French literature and current periodicals.

FL130 Elementary Spanish (4,4,0)

An introductory course in the Spanish language with emphasis upon grammar, vocabulary, diction and conversation. There will be considerable use of tape and disc recordings in the Listening Center.

FL131 Elementary Spanish (4,4,0)

A continuation of FL130. Prerequisite: Spanish 130 or equivalent.

FL230 Intermediate Spanish (4,4,0)

The second year of collegiate Spanish with greater emphasis upon conversation and reading of Spanish literature. Diction and vocabulary study will also continue. Prerequisite: at least two years of high school Spanish, FL131 or its equivalent.

FL231 Intermediate Spanish (4,4,0)

A continuation of FL230. Prerequisite: FL230.



Humanities

HU110 Music in the Elementary Classroom (3,2,1)

This course is designed to give the student a knowledge of well-rounded music programs for the elementary grades. Stress is placed on creative experiences, use of appropriate materials and methods pertinent to the elementary classroom.

HU120 Introduction to Art I (2,1,2) Fall Semester

The introduction course for the visual arts. Instruction in art appreciation and the theory of color and design. Studio work in drawing and two dimensional design involving a variety of materials and techniques.

HU121 Introduction to Art II (2,1,2) Spring Semester

A continuation of HU120. Instruction in art history and three dimensional design. Studio work in sculpture and three dimensional design involving a variety of art and craft materials and techniques.

HU122 Drawing I (3,1,3) Six Studio Hours

Introduction to the tools and materials of drawing using the various approaches to the graphic representation of real and intangible form. Exploration of traditional and experimental drawing media.

HU123 Advanced Drawing II (3,1,3 to 12) Six Studio Hours

Advanced problems in drawing; with emphasis on the human figure and art expression. Prerequisite: HU122.

HU125 Painting I (3,1,3) Six Studio Hours, Fall and Spring Semester

Introduction to the materials and techniques of painting in oils, acrylics, or watercolors. Studio work in the student's chosen painting medium.

HU126 Painting II (3,1,3) Taught con-currently with Painting I

A continuation of HU125 with emphasis on development of individual expression. Studio work in the student's chosen medium.

HU130 Ceramics I (3,1,3) Fall and Spring Semester

Introduction to the materials and techniques of working in clay. Studio work in forming hand built pottery and sculpture, and glazing and firing procedures.

HU131 Ceramics II (3,1,3) Taught con-currently with Ceramics I

A continuation of HU130 with emphasis on learning the technique of throwing on the potters wheel. Studio work in forming hand built or wheel thrown pottery and sculpture, and glazing and firing procedures.

HU191 Choir (1,1,0)

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.

HU192 Choir (1,1,0)

A continuation of HU191.

HU193 Special Ensemble (1,0,1)

These groups are appropriate for musicians who enjoy performing in small instrumental and/or vocal ensembles. Participants will be selected after audition with the director. Each ensemble will meet once per week with the director to rehearse and to set up rehearsal schedules. There will be vocal ensembles such as mixed ensemble, girl's ensemble and men's quartet. Following are the potential instrumental ensembles; brass choir, woodwind quintet, and trumpet trio.

HU194 Special Ensemble (1,0,1)

A continuation of HU193.

HU195 Stage Band (1,0,1)

This group is made up of instrumentalists having previous band experience. Rehearsals are held two times per week. The schedule will be arranged after the first class meeting.

HU196 Stage Band (1,0,1)

A continuation of HU195.

HU200 Man's Creative World (4,4,0)

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, philosophy and religion.



Instructor, Ken Smith, with stage band

HU201 Man's Creative World (4,4,0)
Continuation of HU200. Emphasis on the modern historical development of thought in art, literature, music, philosophy and religion.

HU215 Music Literature (3,3,0)
A comprehensive course in which selected works by major composers, past and present, are studied. Recordings of various musical forms, including the symphony, concerto, tone poem, opera and chamber music, will be used in the class to build a basic listening repertory. The fundamentals of music, including meter signature, accidentals, treble and bass clefs, note and rest values, and circles of fifths, will be introduced. Students will be expected to attend various concerts throughout the semester.

HU225 Art for the Elementary Teacher (2,2,0)
Instruction in the practice and philosophy of teaching arts and crafts to children. Studio work in a variety of materials and techniques suitable for use with children.



Language Arts



LA100 Man's Communication (3,3,0)
The purpose of this course is to introduce the student to the nature and function of the English language. The student will attain a basic competency in oral and written communication.

LA101 Man's Communication (3,3,0)
The purpose of this course is to develop the student's ability to analyze the various processes of formal and informal communication and to improve the ability to recognize and utilize effective argumentative and expository prose. Prerequisite: LA100 or by consent of instructor.

LA120 Introduction to Audio-Visual and Library Services (2,1,1)
This course has two major purposes (1) To acquaint prospective teachers and teacher aides with the operation and simple repair of audio-visual equipment (2) To familiarize students with the function of the library in the school setting and principals and techniques of managing a school library. (Field trips are planned to local school libraries.)

LA150 Reading Lab (1,2,0)
This course is designed to increase reading speed and comprehension in addition to rectifying various deficiencies of the students. The laboratory exercises will be adopted to the needs of the individual. The course may be repeated as many times as is deemed necessary, but a maximum of two credits will be allowed.

LA160 Journalism (3,3,0)
An introductory course which includes the basic techniques of writing, the principles of effective news writing, a survey of newsroom organization and practical experience provided through laboratory sessions.

LA200 American Thought and Literature (3,3,0)
A survey of American Literature including complete works by several authors selected to represent major movements, both literary and historical, and many shorter pieces from each literary genre, with emphasis on the 20th Century.

LA201 American Thought and Literature (3,3,0)
A survey of American Literature from each literary genre, with emphasis on the literature and thought prior to the 20th Century.

LA210 Speech (3,3,0)
Speech 210 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 (3,3,0)
Through analyzing and reading aloud selected prose, poetry and drama, the student will improve his own understanding of these works and increase his ability to communicate to others. The course will relate interpretative reading to the other areas of speech: public address, television, theatre, speech improvement, and the teaching of literature.

LA220 English Literature from the Beginnings to 1798 (3,3,0)

A systematic study of English Literature which stresses the principle 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)

A systematic study of English Literature which emphasizes the principle authors of the nineteenth and twentieth centuries. Reading and discussion will include representative works and will also review current critical attitudes.

LA230 Short Story (3,3,0)

A study of the strengths and limitations of this genre in which the student learns to read with delight and understanding. Prerequisites: In general, this course should be open to students who are willing to work at a sophomore level.

LA240 The Novel (3,3,0)

A study of the novel with dual intent: Through systematic discussion of each novel to increase the rewards one receives from reading it and, through study of the several schools of literary criticism, to better understand how the "more than casual" reader approaches fiction.

LA250 Creative Writing (3,3,0)

The purpose of this course is to allow the student to sharpen his 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 he has 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)

An introduction to drama as a literary form. The student will read representative writings of the period from classical times to the present.

LA261 Drama (3,3,0) Drama as a Performing Art

Students are involved in the producing, acting, staging and directing of plays.

LA270 Poetry (3,3,0)

Contemporary and classic examples of poetry are compared to historically durable examples on points of structure and content.

LA280 A Survey of Black American Literature (3,3,0)

A chronological survey of Black American writing from 1760 to the present, with emphasis on twentieth century examples of poetry, fiction, drama and autobiography.

LA295 Children's Literature (3,3,0)

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.

Mathematics

**MA100 Elementary Algebra (3,3,0)**

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. Prerequisite: none.

MA102 Trigonometry (3,3,0)

The right triangle is studied to introduce the students to the trigonometric functions. Further topics include trigonometric identities, additional formulas, law of sines, law of cosines, complex numbers and DeMoivre's Theorem. Prerequisites: one and one half years of high school algebra and one year of high school geometry.

MA104 Intermediate Algebra (3,3,0)

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. Prerequisite: MA100 or equivalent.

MA151 Math for Elementary Teachers (3,3,0) Fall Semester

To 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 ten, systems of integers, rational and real numbers will be discussed.

MA152 Geometry for Elementary Teachers (3,3,0) Spring Semester

This material presents a survey of geometry; formal and informal, metric and non-metric, Euclidean and non-Euclidean. Topics include points, planes, parallels, congruence, measures and introduction to vectors. Prerequisite: MA151 or equivalent.

MA159 College Algebra (3,3,0) Fall Semester

Topics covered include the quadratic equation, sequences and series, complex numbers, DeMoivre's theorem, synthetic division, mathematical induction; combinations and permutations. Prerequisite: Trigonometry.

MA160 Analytic Geometry (3,3,0) Spring Semester

The straight line, the circle conics, algebraic curves, transcendental curves, parametric equations, planes and lines, and quadratic surfaces. Prerequisite: MA159 or equivalent.

MA190 Elementary Statistics (3,3,0)

This course is designed to introduce students to basic statistical techniques. Topics studied include mean, standard deviation, frequency, probability, binomial distribution, the normal curve, sample means, confidence limits, hypotheses testing, chi-square, linear correlation and regression. Each topic is introduced with examples and problems. Practice in the use of appropriate tables will be sufficient to insure confidence in their use. Prerequisite: One year of high school algebra.

MA250 Calculus I (4,4,0) Fall Semester

Functions and continuity, limits differentiation, applications, integration and the definite integral with applications. Prerequisite: MA160.

MA251 Calculus II (4,4,0)

Logarithms and exponentials, arc length, polynomials, partial fractions, Taylor's series. Special methods of integration, partial differentiation. Prerequisite: MA250 or equivalent.

MA290 Differential Equations (3,3,0)

Linear equations, the Bernoulli Equation, existence and uniqueness theorems, applications equations of first order and high degree. Clairaut's equation, solution by power series, an introduction to Laplace transform, Sturm's theorem. Prerequisite: One year of Calculus.

Natural Sciences

**NS100 Man's Biological World (4,3,2)**

This course provides a basic general education in the major Biological sciences (Biochemistry, 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 or her own interest and potential in a biological science.

NS101 Man's Physical World (4,3,2)

The purpose of this course is to provide a basic general education in the major science areas (Astronomy, Geology, Physics and Chemistry) so that the student will better be 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 or her own interest and potential in physical science.

NS102 Physical Geography (3,3,0) (Earth Science)

A study of the earth-sun relationships, climatic factors on the earth, the geographic grid, land forms, rocks and minerals. 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 the part played by man in the depletion of these vital materials.

NS200 Botany (4,3,2) Fall Semester

A survey of the plant kingdom from the simplest to the more complex. Studies of structure, classification, physiology and ecological relationships as well as economic values of the plant kingdom, shall be considered. 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.

NS205 Zoology (4,3,3) Spring Semester

A general survey of the animal kingdom including comparative studies of the structure, function, and behavior of representatives of animal groups. The anatomy and physiology of the human will be emphasized in the study of mammals.

NS206 Invertebrate Zoology (4,3,2) Fall Semester

A study of the invertebrates representative of various habitats of the local area. Field and laboratory work involves the interrelationships, identification, and biological adaptations of local invertebrates while the lecture sessions provide background in basic invertebrate zoology.

NS207 Human Anatomy and Physiology (4,3,2) Spring Semester

An elementary course in human anatomy and physiology with emphasis on normal function and common disorders.



A biology class in session



NS220 General Chemistry (4,3,4) Fall Semester

Fundamental theories, principles, and problems of chemistry will be emphasized. Prerequisite: One year of high school algebra, NS101 or permission from the instructor.

NS221 General Chemistry (4,3,4)

A continuation of NS220. Organic and biochemistry will be introduced and the last four weeks will cover qualitative analysis.

NS222 Organic Chemistry (5,4,3)

The chemistry of carbon compounds and their derivatives with emphasis on nomenclature, fundamental principles, reactions, and reaction mechanisms. Prerequisites: NS220 and 221.

NS223 Organic Chemistry (5,4,3)

A continuation of Chemistry NS222, including stereochemistry and organic compounds of biological interest. Prerequisite: NS222.

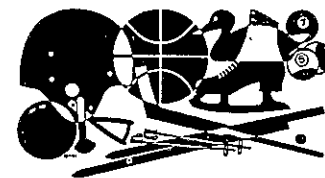
NS225 College Physics I (4,4,2)

An introductory course in mechanics, heat and sound. This is a technical course designed for those majoring in engineering or science. Calculus should be taken concurrently.

NS226 College Physics II (4,4,2)

A continuation of NS225. Light, electricity and magnetism, and modern physics will be considered. Calculus should be taken concurrently.

Physical Education



PE101 Golf (1,0,2)

A coeducational course designed to teach the fundamentals of golf.

PE102 Bowling (1,0,2)

A coeducational course designed to teach the fundamentals of bowling.

PE103 Weight Training (1,0,2)

This is a course involving the supervised lifting of weights and body conditioning. Two tracks are possible: track one is for weightlifting, track two is a personalized conditioning program for athletes and others.

PE104 Archery (1,0,2)

A coeducational course designed to teach the fundamentals of archery for target or field shooting.

PE105 Diversified Activities (1,0,2)

A coeducational course designed to teach recreational activities involving lawn jarts, table tennis, chess, checkers, volleyball, badminton, horseshoes, and other quiet recreational activities.

PE107 Cross Country Skiing (1,0,2)

The student 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 Modern Ballroom Dancing (1,0,2)

This course will teach the student basic steps in modern ballroom dancing (swing, foxtrot, cha-cha, waltz, etc.) and the courtesies necessary for developing poise and confidence on the dance floor.

PE109 Folk Dancing (1,0,2)

A general course designed to develop skills and techniques in the various country and folk dances.

PE111 Karate I (1,0,2)

This course is designed to teach the student the basic kicks, punches, and blocks of Karate.

PE112 Karate II (1,0,2)

A continuation of PE111.

PE114 Beginning Western Horsemanship (2,1,1)

This course is designed to teach the student the basic principles of western horsemanship. Western horsemanship will be covered from horse care and preparation through riding and ring etiquette.

PE115 Personal Self-Defense (1,0,2)

This course is designed to teach the student basic methods of self-defense as well as avoiding personal dangers.

PE116 Paddleball (1,0,2)

This course is designed to teach the student the fundamental skills needed to play paddleball for fun and physical conditioning.

PE117 Beginning Trampoline (1,0,2)

This course is designed to teach the basic skills and safety procedures for recreational use of the trampoline.

PE118 Bicycling (1,0,2)

This course is designed to teach the student how to select, adjust, maintain and use equipment properly. The student will also learn safety and riding techniques.

PE119 Beginning Tennis (1,0,2)

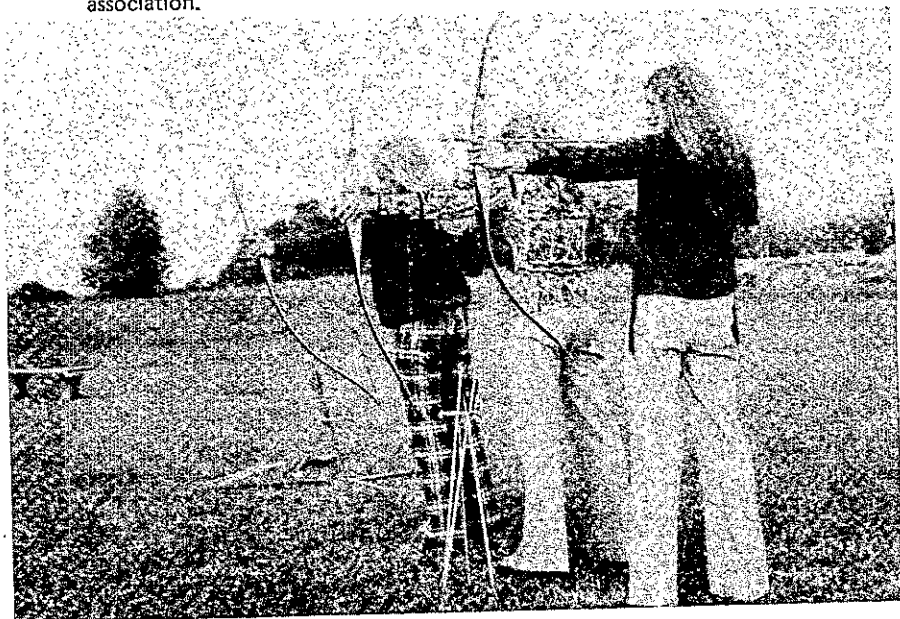
Instruction for the beginner in the basic skills of tennis, including services, the forehand, and backhand strokes. Students will also learn the rules and strategy of the game.

PE120 Intermediate Tennis (1,0,2)

Designed to further refine 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)

This course presents the rules of major sports, officiating techniques, relationship with players and school officials and game administration. Major emphasis is to stimulate students into becoming registered officials with the state association.

**PE122 Beginning Skiing (1,0,2)**

Fundamentals of 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)

This course includes all intermediate ski maneuvers with special emphasis on parallel skiing. Introduction to ski racing including a study of different types of courses and styles. Ski maintenance and technical information on skis and bindings will be studied.

PE124 Advanced Skiing (1,0,2)

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.

PE125 Principles of Physical Education (3,3,0)

This course includes the nature of health, physical education and recreation. Physical education is discussed from ancient to modern times. The course includes the biological, psychological and sociological foundations of physical education, professional organization, literature and career opportunities.

PE130-140 Aquatics

Practical Nursing

PN100 Nursing Foundations I (4,3,9)

This course provides the nursing student with the information and skills necessary to build a foundation for efficient bedside nursing. Students not only gain skill in basic nursing procedures they are to perform, but also increase their ability to communicate with patients and members of the health team.

PN110 Food in Health and Disease (2,2,0)

Basic nutrition facts are presented with their relationship to health. The student becomes familiar with food nutrients, good nutrition, and variations of diet therapy.

PN120 Personal and Environmental Health (2,2,0)

The person as a nurse is studied in this course. It contributes to self understanding and what in nursing history and education has evolved as the present role of a member of the nursing profession. The student will be introduced to preventive medicine, laws of sanitation, the community health team and each member's role in meeting the total needs of its citizens.

PN130 Body Structure and Function (7,6,2)

This course introduces the student to the study of the human body structure, dynamics and functions, and disease. The concept of the dependence of one system on another and the contributions of each system to the well-being of the body is stressed.

PN140 Human Growth and Behavior (3,3,0)

The developmental processes of the human being are studied with emphasis on early childhood growth and development and the child-parent relationships. Nursing skills essential to the care of children and the study of the common childhood disease conditions are also presented.

PN200 Maternal and Child Health (3,2,6)

This course teaches the student facts about pregnancy. It gives an understanding of the related care, treatment and possible complications of the mother before, during, and following delivery. Care of the newborn infant is also covered. Prerequisite courses: PN100, PN130.

PN210 Nursing Foundations II (7,3,9)

This course provides the nursing student with the knowledge and ability to perform sterile procedures, assist the doctor with more technical procedures, and administer first aid and medications. Prerequisite courses: PN100, PN130.

PN220 Medical-Surgical Nursing (7,3,9)

This course presents the more common medical and surgical conditions and the treatment and skill involved in providing nursing care. The course is intended to present the concept of assessing and meeting the total needs of the patient and a return to normal functioning life. Prerequisite courses: PN100, PN120, PN130, PN140.

**PN225 Mental Health (1,1,0)**

This course in mental health is given to help students identify and meet the emotional needs of all patients in general hospital situations. The course also surveys concepts of the psychiatric patient and their applications to all interpersonal situations. At the completion of the course, the nursing student will be able to identify basic dynamics of human behavior and differentiate among patterns of behavior. The correlation between physical illness and emotional instability are learned as factors to consider in planning patient care. Prerequisite courses: PN100, PN130.

PN230 Pharmacology (6,4,9)

This course offers instruction in pharmacology and safety factors essential to dosages and drug administration. Upon completion of the course, the graduate will be able to participate appropriately in the total process involved in the administration of a drug to a patient, including preparing, observing, recording, and reporting the effects of the drug. In addition, a program on substance abuse is included. Prerequisite courses: PN100, PN110, PN120, PN130, PN140, PN200, PN210, PN220, PN225.

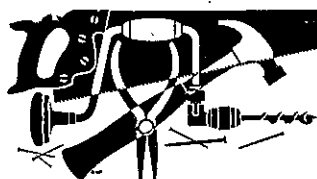
PN240 Nursing III (4,0,15)

Each student will be gaining experience in several clinical areas. The subject matter learned in the prerequisite courses will be coordinated into practical application of meeting the patient's respective needs. Emphasis will be placed on the student's ability to assess, plan, and implement nursing care. Prerequisite courses: PN100, PN110, PN120, PN130, PN140, PN200, PN210, PN220, PN225.

PN281 Basic Concepts of Pharmacology and the Administration of Medicines (4,4,2)
(Open only to Licensed Practical Nurses)

This course is sponsored by Montcalm Community College with the approval of the National Association for Practical Nurse Education and Service, Inc. (NAPNES). This continuing education program will prepare L.P.N.'s with the knowledge, techniques, and attitudes pertaining to drugs and their administration that are essential for carrying out their nursing responsibilities. Only applicants who have passed the pre-entrance math test (arranged by MCC) and the National Pharmacology Final Test will be issued a certificate from NAPNES. (60 clock hours of instruction, 30 clock hours of clinical experience.)

Residential Construction Technology



RC110 Construction Methods & Materials I (3,2,1)

This course is designed primarily to supplement RC120 in that it is designed to broaden the scope of instruction gained in RC120. The course will include field trips to various construction job sites (residential and commercial), a truss building factory, modular home factory, and various points of interest relative to the construction industry. Lectures by guest speakers on construction will be included. Basic mathematics is also included in this course.

RC111 Construction Methods & Materials II (3,2,1)

A continuation of RC110.

RC115 Architectural Blueprint Reading (2,1,2)

A lecture/laboratory course designed to teach students the art of reading construction blueprints as it relates to residential and commercial construction.

RC120 Construction I (12,2,16)

A practical course involving full-scale construction of a residential building using modern materials and methods. This course will involve rough framing, exterior covering and closing against the weather.

RC121 Construction II (12,2,16)

A continuation of RC120 involving drywalling, plastering and interior finishing of a residential home.

RC130 House Wiring (2,1,2)

A course in residential house wiring technique and wiring codes. Instruction will be practical in nature with students doing wiring exercises in a laboratory situation.

RC160 Foundations and Block Laying (4,2,4)

A practical course in foundation layout and construction, and block laying. The student will layout foundation footings and construct a building or basement of cement blocks. It is intended to build a basement for a residential home, install footing drains, back fill and install floor joists and sub-floor on a house. (Offered summers only.)

RC161 Basic Block Laying and Brick Laying (2,1,2)

A laboratory/lecture course covering the following topics: building corners, swiping mortar, joint reinforcing, tooling of joints, laying to a line, buttering head joints, laying headers, rowlocks and soldiers. The student will gain laboratory experience in the above mentioned topics.

RC170 Fireplaces and Arches (2,1,2)

A laboratory/lecture course covering the following topics: basic arch construction, basic fireplace and chimney construction, fireplace construction with sheet metal forms and fire brick. The student will gain laboratory experience in the above mentioned topics.

RC180 Drywalling and Plastering (2,1,2)

A laboratory/lecture course covering the following topics: handling drywall board, taping joints, filling nail heads, troweling corners, and applying finish coat, thin coat plastering, swirling ceilings, plaster and cove moldings. The student will gain laboratory experience in the above mentioned topics.

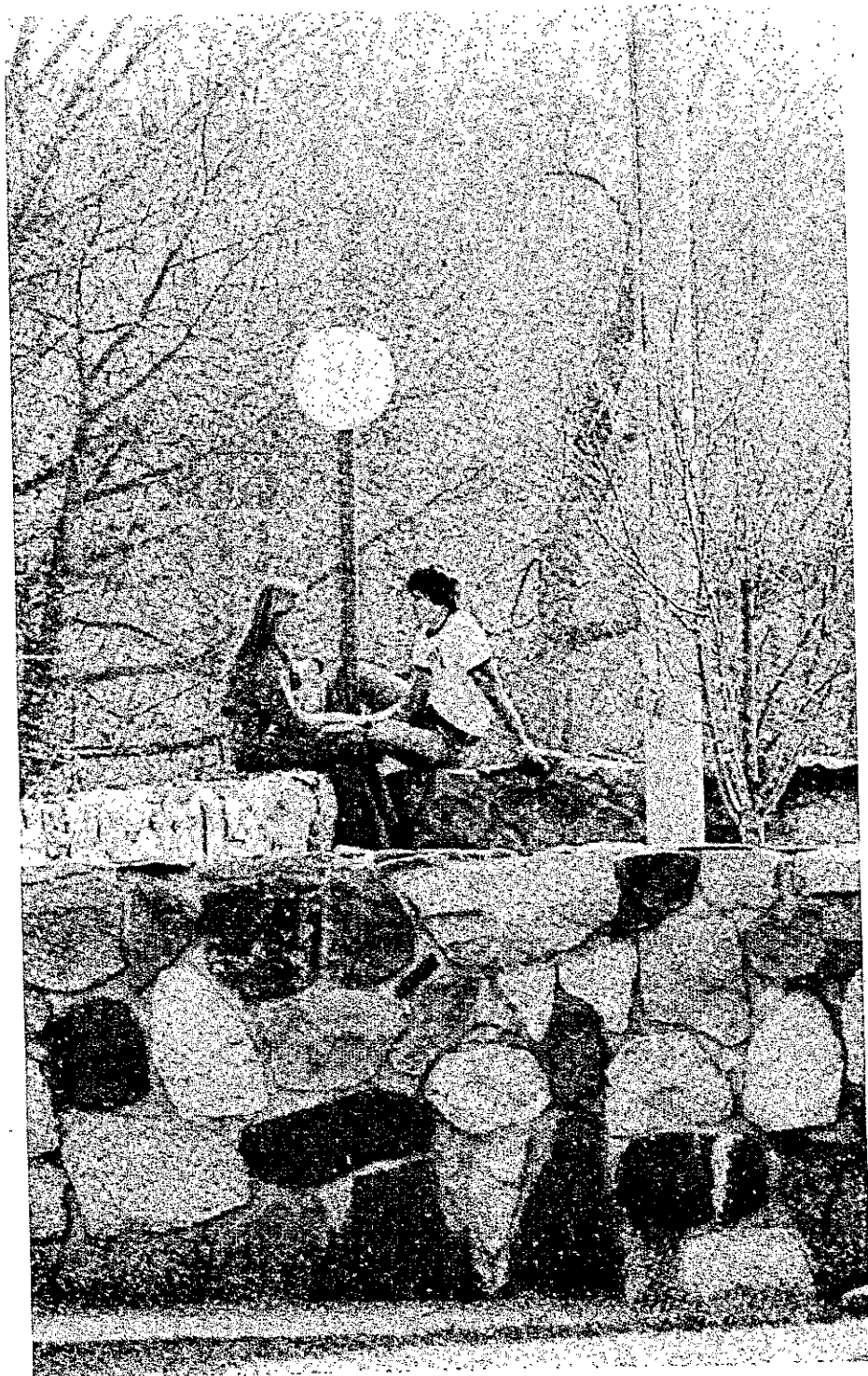
RC290 Basic Plumbing (2,1,2)

A laboratory/lecture course covering the following topics: Plumbing codes, installation of fixtures, sweating copper tubing joints, gluing plastic pipe, and current plumbing innovations.

RC292 Residential Heating (2,1,2)

Topics covered include forced air heating, hot water heating, electric heating, and solar heating.





Social Sciences



SS100 Man's Social World (4,4,0)

This course is designed to introduce the student to the interdisciplinary approach to the study of the development of human behavior. Emphasis will be placed upon those concepts and theories which have influenced man's thinking about his individual nature and social relationships. (Materials from the following disciplines will be utilized: History, Anthropology, Sociology, Political Science, Psychology and Economics.)

SS101 Man's Social World (4,4,0)

This course is a continuation of SS100. It is designed to study those patterns of behavior which have led to the creation of forces that have shaped modern society. Special emphasis will be given to the rights and responsibilities of citizenship and the form and function of government. Emphasis will also be given to specific problem areas which confront the contemporary world. (This course also satisfies the state requirements for political science.)

SS105 Contemporary Society (2,2,0)

This course will explore the volatile nature of the "now" society. It will deal with such areas as youth culture, rebellion in the home, on the street and on the campus, divergent group antagonism and social "I" concept. The students will be given a larger decision making role concerning the context and direction of the course. However, techniques of instruction will involve social encounter and/or sensitivity methodology.

SS130 Introduction to Social Services (3,2,1)

A survey course designed to acquaint the student with the role and function of social services, the various agencies involved and related information. In addition, there will be some emphasis on the role of the para-professional with activities planned for self-improvement such as interviewing, role playing, listening, and other related activities.

SS140 Introduction to Corrections (3,3,0)

An examination of the total correctional process from law enforcement through the administration of justice, probation, prisons and correctional institutions.

SS145 Corrections Practicum (4,4,0)

This course incorporates several aspects of the corrections process including the role of the practitioner, social and psychological aspects of the client, and other important information related to correctional work.

SS155 Introduction to Early Childhood Education (3,3,0)

Curriculum planning, methods and materials for nursery and kindergarten children. Concepts of interaction with and guidance of the pre-school child.

SS190 Observational Laboratory or Supervised Field Work (3,1,2)

The purpose of this course is to provide an opportunity for the student or para-professional to gain firsthand experience in a community service agency. The student will have the opportunity for two types of experiences (1) A study in depth of designated community service agencies, and/or (2) Participation in a community service agency with defined objectives.

SS200 Contemporary Problems (1,1,0)

This is a series providing for study and examination of problems and concerns for which, hopefully, solutions can be found. Such areas of concern may include, but are not limited to, Environment, Ethics, Personal Identify, Politics and Drugs.

SS201 Contemporary Problems (1,1,0)

A continuation of SS200.

SS215 Principles of Economics (3,3,0)

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. Units include the American Economy, the Macroeconomic System, Theory of the Firm and World Economic Problems.

SS216 Principles of Economics (3,3,0)

Microeconomics—Markets, the price system, and the allocation of resources; households, businesses and government sectors; current domestic economic problems; international economics and alternative economic systems.

SS220 General Psychology (3,3,0)

An introductory survey of the subject matter of psychology with emphasis on both scientific and humanistic approaches to the study of man. The course is designed to familiarize the student with what the field of psychology addresses itself to and how. Among the subjects covered are experimental methodology, human growth and development, intelligence, perception, learning, motivation and emotion, personality disorder and therapy, and group behavior.

SS221 Child Psychology (3,3,0)

A study of psychological theory and experimental findings in the context of their application to understanding, predicting and modifying childhood behavior. Emphasis is on such basic concepts as heredity and environment, maturation, intelligence and achievement, learning and childhood anxiety.

SS225 Educational Psychology (3,3,0)

This course is designed to introduce the student to the basic principles of psychology as applied to education. Emphasis will be placed upon the processes of learning and teaching.

SS230 Sociology (3,3,0)

An introduction to the field of sociology surveying such topics as culture and society, social structure, social class, institutions, demography, deviancy, and social change. Emphasis is placed upon acquainting the student with the sociological perspective of human behavior and man's modes of social organization.

SS235 Social Problems (3,3,0)

An examination of the sociological approach to social problems with particular emphasis on deviant behavior and social disorganization including such problems as mental disorders, drug abuse, crime, sexual deviancy, prejudice and discrimination, poverty, family and community disintegration, violence and the environmental crisis.

SS240 Political Science (3,3,0)

An introduction to the institutions and functions of the national government. Special emphasis will be placed upon the evolution of the present national governmental system, and also upon the need to probe and define the problems of American government and politics in terms of changing times and conditions. This course is designed to satisfy the political science requirements of all curricula as well as the state requirements for political science.

SS241 State and Local Government (3,3,0)

A study of the state constitution, legislative, executive and judicial organization and powers of the state and principal activities of the state. Attention will be given to the state-local relations and to county and municipal government.

SS250 U.S. History to 1865 (3,3,0)

A study of the history of the United States from the period of exploration to the close of the Civil War. Special emphasis will be placed upon the rise of our political and social institutions; the influence of the frontier, the conflicts between individualism, sectionalism, and nationalism; and the implications and consequences of disunion in the Civil War.

SS251 U.S. History from 1865 to the Present (3,3,0)

This course is a continuation of SS250. A survey of America's political, economic and diplomatic history from the close of the Civil War to the "Great Society" will be made. Special emphasis will be placed upon the Reconstruction of the South, the industrial transition, the Progressive movements, the world wars, the domestic wars, the emergence of the U.S. into a position of world leadership and the responsibility of this maturity.



Field work experience

Trade-Technical Education

VE100 Vocational Communication Skills (3,3,0) Fall Semester

A course to develop reading, writing and speaking skills. Emphasis is placed on precision, clarity and organization of written and oral communications.

VE102 Technical Writing and Speaking (2,2,0) Spring Semester

A study of the nature of concise writing of technical papers, reports and correspondence demanded of the technician is made, providing ample practice assignments in the student's area of study. Topics covered include: Effective organization, style, mechanics, tables and figures, contents and techniques of report writing, formal reports, figures, contents and special letters, memos, the letter of application, the bibliography, abbreviations, spelling and others. This course also emphasizes the value and necessity for effective verbal communications. Persuasive oral presentations are a part of the course.

VE104 Shop Drawing (2,1,2)

This course is designed to enable students to develop skill in the production of a working drawing. Programmed instruction involving line work, projection, dimensioning and identification is the major emphasis of the course.

VE106 Blueprint Reading (2,2,0)

This course is designed to provide basic instruction in the understanding, interpretation, and utilization of blueprints. Instruction is provided in a manner such that the student may concentrate on blueprints, unique to a specific trade or specialty.

VE110 Shop Mathematics (3,3,0)

This course includes a review of fractions, decimals, simple computations, measurements (including the Metric System), and applied shop problems.

VE112 Technical Math (3,3,0)

This course is presented in terms of application normally encountered in industry and the laboratory by the technician and consists of simple arithmetic and algebraic notations, the language of algebra, positive and negative numbers, factoring, fractions, exponents, powers, roots, radicals, equations, formulas and their application to industry.

VE113 Technical Math II (3,3,0)

An informal approach to topics in elementary geometry that have trade related applications. Topics include construction, properties of triangles and circles. Elementary operations on the slide rule will be covered including problems in multiplication, division, combined multiplication and division, square root, cubing and cube root.

VE114 Technical Math III (3,3,0)

This course begins with a review of linear equations and proceeds with quadratic equations, trig functions through fundamental identities, logarithms and the slide rule through trig functions.

VE115 Technical Math IV (3,3,0)

This course consists of work with the binomial theorem, arithmetic and geometric progressions, complex numbers, solution of cubic and quartic equations, mathematical induction and law of sines and cosines with applications for industry.

VE120 Technical Physics (3,2,2)

This course gives an introduction to applied science, its history and use, and an insight into understanding the properties and control of matter and energy; technical aspects analysis and use of mechanics; technical aspects of heat effects and energy.

VE150 Metallurgy (2,2,0)

This course is a study of properties, classifications, production, and application of steel as it relates to the designer and die-maker. The course includes the study of heat treatment of metals and various tests to determine physical properties of metals.

VE220 Tool Room Operations (3,2,2)

This course covers the theory and practice in the operation of the 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 skill.

VE230 Mechanics and Strength of Materials (3,3,0)

This course explores the fundamental principles and applications of materials testing, mechanics, and strength of materials. Included in the course are topics such as selection and appropriate use of non-destructive testing methods which includes penetrant, chemical etching, and magnetic particle inspection. Basic heat treating along with an in-depth study of material selection and use will be a part of the course. Included will be topics dealing with axial and central loads, stress and fatigue factors, and study of design data from experiments.

VE250 Basic Electricity (3,2,2)

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, electromagnetism, transformers and motors. This course emphasizes a "hands on" approach with the use of modern components and equipment.

VE253 Hydraulics and Fluid Mechanics (3,3,0)

This course includes applied physics, hydraulic principles and formulas, fluid characteristics and basic circuits and theory. In practice the units of the hydraulic system are disassembled, inspected, and tested. The piping, tubing, hose and common trouble sources in hydraulic systems are covered through laboratory demonstrations and experiments on specialized fluid power equipment.

VE260 Manufacturing Processes (2,2,0)

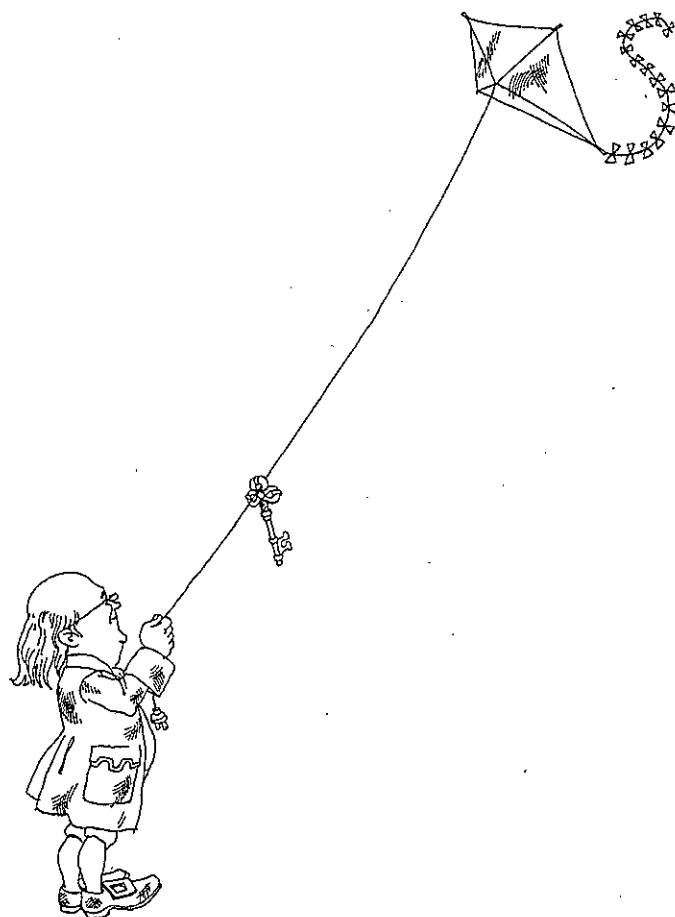
A study of the methods of processes used in manufacturing a product is studied. Individual and group tours of industry along with a survey of technical literature is the basis for the term paper required.

VE290 Field Experience (3-9 credit hours)

A course consisting of a carefully-planned cooperative work experience in business industry and a weekly seminar. To receive credit for the course the student must meet the following requirements: (1) acquire approved work experience, (2) show evidence of satisfactory progress through bi-weekly employer reports, (3) complete a minimum of 75 clock hours work for each semester hour of credit granted. (Permission of coordinator required.)

VE291 Field Experience (3 credit hours)

A continuation of VE290.



Welding

WE100 Welding Fundamentals and Practice (11,4,12)

This course is designed specifically to provide basic skills, fundamental knowledge, and practical capability in the welding field. A major share of the course is devoted to actual welding practice designed to master the techniques for making welds in all positions with a wide variety of manual processes. Instruction is given in oxyacetylene welding, brazing, cast iron welding, pipe welding, silver soldering and flame cutting. Lecture, discussion, and test and study guide assignments provide the essential background material needed by the welder.

WE101 Advanced Welding (11,4,12)

This course incorporates theory and practice in improved mastery of welding techniques, use of processes, join design, weld symbols, and inspection and testing of welds.

WE102 Advanced Welding Laboratory I (3,0,4)

Major emphasis in this advanced laboratory course is directed toward modifying manipulative techniques to produce welds in all positions which meet American Welding Society Standards for certification. The use of the largest practical diameter electrodes will be stressed and comparative analysis of electrode selection of optimum welding economy will be expected from each student. Early completion of certification requirements will enable the student to develop ability to make process comparisons and economic feasibility studies.

WE103 Advanced Welding Laboratory II (3,0,4)

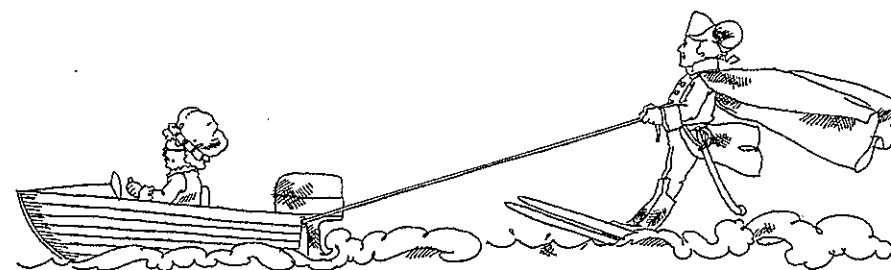
A continuation of WE102.

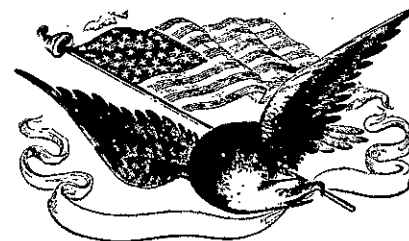
WE104 Advanced Welding Laboratory III (3,0,4)

A continuation of WE103.

WE110 Related Welding Skills (3,1,3)

This course covers welding theory and practice in oxy-acetylene cutting, welding and brazing. Electric arc welding theory and practice with mild steel electrodes in flat and vertical positions to meet visual inspection requirements as they would apply in automotive areas.





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BUSINESS EDUCATION