

1972

Bulletin of Bowling Green State University Firelands Campus 1972-73

Bowling Green State University

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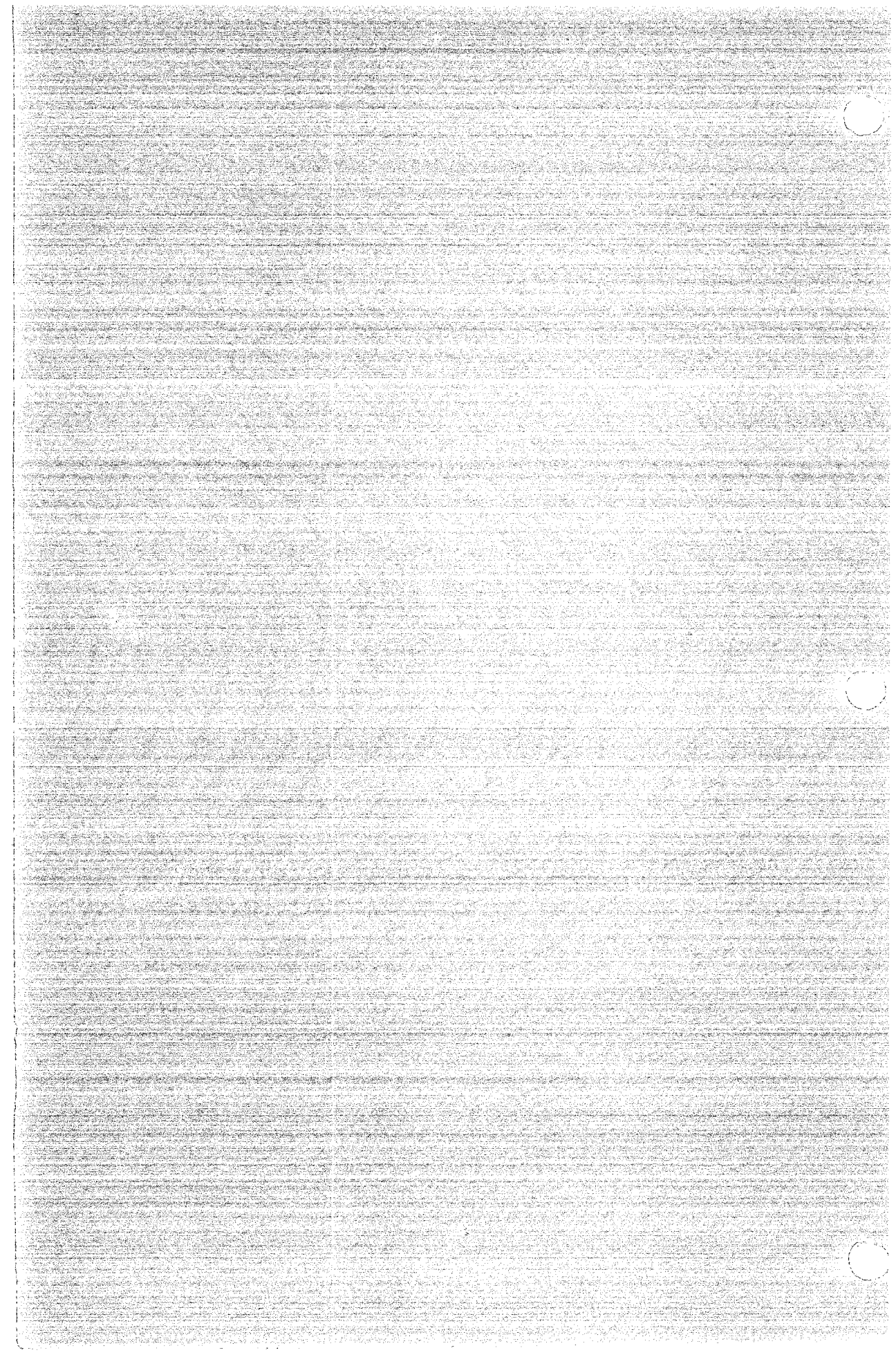
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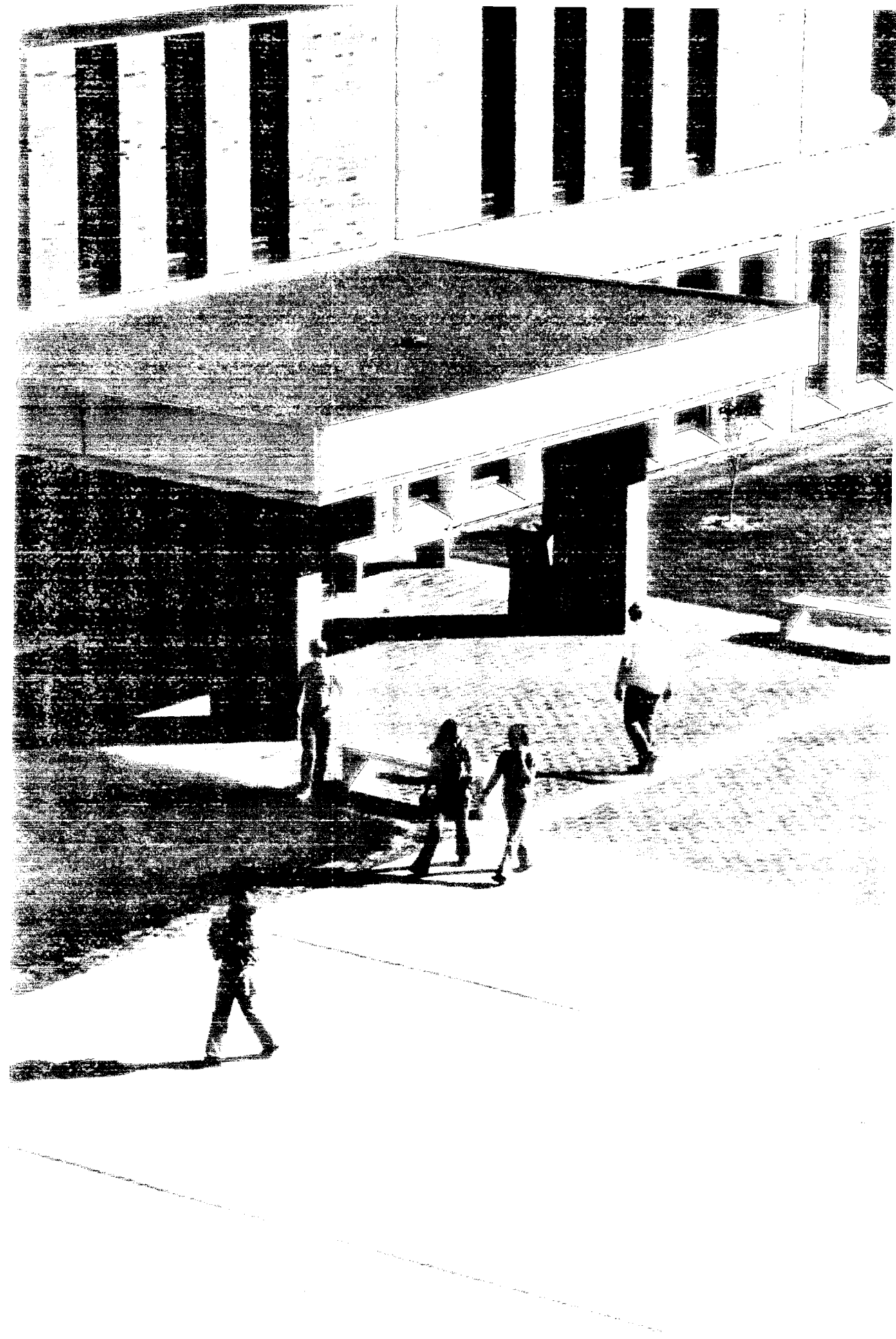
Bulletin of Bowling Green State University
Firelands Campus 1972-73



Tom R

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FIRELANDS CAMPUS

HISTORY OF THE FIRELANDS CAMPUS

The Firelands Campus traces its beginning to Bowling Green State University classes which were first taught in Sandusky in the fall of 1946, in cooperation with the Sandusky Board of Education primarily to help educate returning U.S. service veterans. Karl Whinnery, then Superintendent of Sandusky Schools, was instrumental in organizing the program. The first classes met at Sandusky High School during the evening.

In 1948 classes were discontinued until 1953 when Mr. Whinnery, who had retired as superintendent, became the first Director of the Sandusky Academic Center. He asked for University aid in organizing a two-year cadet teacher program which had a first-year enrollment of 30. Two years later, several courses of the Colleges of Arts and Sciences and Business Administration were added to the Center's curriculum.

Mr. Whinnery was succeeded by Raymond Brickley in 1957 and by Ervin Carpenter in 1965. Dr. James H. McBride, the first full-time Director, was appointed in July, 1966.

The first move toward a permanent campus was taken in 1963 when the Exchange Club of Sandusky, the Sandusky Area Chamber of Commerce, and Bowling Green State University officials began discussing the future of higher education in the area.

Additional meetings were held in 1964 when the plan for a full-time campus, rather than a community college, was adopted. The Committee on Educational Development (COED), incorporated in March, 1965, guided the project.

On November 24, 1965, the Bowling Green State University Board of Trustees granted approval for a full-time day/night branch campus to serve Erie, Huron, and Ottawa Counties. The Ohio Board of Regents set March 1, 1966, as the deadline for citizens in the area to raise \$600,000 before the state would release \$1.8 million for the project. In an almost superhuman grass-roots effort, citizens of the tri-county area pledged or contributed more than \$1.1 million, nearly double the quota.

The name "Firelands" was chosen at a COED meeting on October 18, 1966, and approved by Bowling Green State University Trustees on January 6, 1967. The name recalls the early history of the region when it consisted of land allocated to Connecticut families as compensation for damages suffered from the burning of homes and property at the hands of the British in the Revolutionary War.

A Site Selection Committee recommended the land to be purchased for the campus, and approval was given by COED which acquired the land and deeded it to the State of Ohio.

PHASE I: INITIAL CONSTRUCTION

On June 22, 1967, bids for construction of two buildings for the Firelands Campus were opened in the office of the State Architect in Columbus. Ground was broken on July 10, 1967, when Governor James A. Rhodes and Representative Ethel G. Swanbeck turned the first spadefuls of earth.

Construction required approximately 14 months; and, in the meantime, classes, with an expanded curriculum, continued to meet in the excellent facilities of Sandusky High School.

The first two air-conditioned buildings of brick and concrete design contain 93,000 square feet of floor space. The West Building is three stories high and

has 28 classrooms and laboratories, a faculty lounge, 30 faculty offices, three conference rooms, an instructional media center, a language laboratory for disc and tape recordings, the 90-seat auditorium-like Firelands Room, student lockers and commuters' lounge.

The East Building is two stories high; the entire second floor is utilized by the library. The first floor houses administrative offices, student lounge, bookstore, food vendeteria, receiving department, mail room, and mechanical equipment. The campus grounds have been landscaped with numerous deciduous trees, shrubs, and evergreens outlining the driveways, parking areas, campus lake and court.

At the base of the flagstaff on the court circle is a plaque memorializing the Firelands area with a bronze seal marking the site of the campus.

PHASE II: BUILDING PROGRAM

In 1969, the Ohio Board of Regents designated Firelands Campus to offer technical education programs in the tri-county area. The 108th General Assembly of the State of Ohio in 1970 generously appropriated \$2.5 million for the construction and equipment of the Phase II building. The new facilities should be ready for occupancy by September, 1972, and will increase the student capacity of Firelands and the variety of courses offered. Two-year associate degree programs are being developed which will utilize special facilities in this new building.

An EPIC (Energy, Power, Instrumentation, and Control) laboratory comprises the main portion of the building with facilities for the new Omni-Tech program. The IDEA (Instruction, Demonstration, Exhibition, and Activities) area is a multi-purpose facility which also serves as a gymnasium with adjacent shower and dressing rooms. A 300-seat large-group instruction area, a second vendeteria, student recreation area, computer center, and faculty offices are included in Phase II.

ACADEMIC ORGANIZATION

The first two years of study offered by Bowling Green State University's Colleges of Arts and Sciences, Business Administration, and Education are available to students at Firelands Campus. In addition, new associate degree programs in several technological areas are offered. Entering students enroll in one of the three University colleges or in the two-year associate program. Credits may be applied to programs on the main campus of Bowling Green or may be transferred to other accredited colleges or universities.

The University, including Firelands Campus, is on a quarter credit calendar. The Firelands Campus operates on a daytime/evening schedule: 8:30 a.m. until 10 p.m.

Registration by an individual student is permitted in daytime classes, evening classes, or a combination of both. Classes meet for a period of 50 minutes per week for each quarter hour of credit, or its equivalent. Instruction is supervised by members of the regular academic staff of Firelands Campus and/or Bowling Green State University.

Upper division courses (junior, senior, and graduate level) are offered in addition to the courses listed in this bulletin. Those courses are administered by the Office of Continuing Education in Bowling Green and are not a regular part of the Firelands academic program. Every reasonable effort is made to offer courses as announced, but the right is reserved to withdraw any course from the schedule if enrollment is insufficient.

Firelands Campus serves:

1. The student who wishes to begin work leading to a baccalaureate degree.
2. The student who desires a two-year technical program that leads to an associate degree.
3. The student who plans to enter a professional school such as law, medicine, or engineering. The student may obtain the first year of pre-professional study before transferring to an appropriate school.
4. The student who does not plan to earn a college degree, but who desires education beyond high school.
5. The student who is above traditional college age and who wishes to study for professional or cultural improvement or personal satisfaction.

APPLICATION FOR ADMISSION

REGULAR FRESHMAN STUDENTS

Any Ohio high school graduate who has never attended a college or university is eligible to submit an Application for Admission to the Director of Admissions, Bowling Green State University, Bowling Green, Ohio, 43403.

Early application is necessary since formal admission must be approved prior to registration for classes. An Application for Admission may be obtained from the Student Services Office at the Firelands Campus or the Admissions Office at the Bowling Green campus. High school seniors are encouraged to submit applications early in their senior year to allow adequate opportunity for campus planning.

An Application for Admission to the fall quarter, 1972, must be submitted prior to September 1, 1972.

An Application for Admission to the winter quarter, 1973, must be submitted prior to December 1, 1972.

An Application for Admission to the spring quarter, 1973, must be submitted prior to March 1, 1973.

Each Application for Admission is processed in the Admissions Office on the main campus of Bowling Green State University.

A non-refundable \$25 Application Fee must accompany the Application for Admission.

An official high school transcript must be submitted by each applicant. Each freshman applicant is required to submit official American College Test (ACT) results unless he has been graduated from high school three or more years prior to applying. Applicants intending to enroll in baccalaureate programs should take the regular ACT battery. Those planning to enroll in two-year associate degree programs must take the Career Planning Program (CPP) of the ACT. The student's high school counselor should be consulted for details concerning the ACT Testing Program, and Application for Admission can be submitted in advance of taking the ACT.

REGULAR TRANSFER STUDENTS

Under Bowling Green State University's transfer admission requirement, a student who has attended another accredited college or university is considered for admission:

1. If he has earned at least 90 quarter hours with a scholastic average equivalent to a 2.0 in a 4.0 system;
2. If he has earned less than 90 quarter hours with a scholastic average equivalent to a 2.5 in a 4.0 system. A student whose accumulative average is between 2.0 and 2.5 may be considered for admission upon petition. After an initial evaluation of his completed admission credentials by the Office of Admissions, a student in the petition range (2.0 to 2.5) is sent the Petition Form by the Office of Admissions. Upon the return of this form, an admission decision is made by the dean of the college to which the student is applying in consultation with the Director of Admissions.

A student who cannot meet the above transfer admission policies and who has not attended another college or university for a period of one or more years may be considered for Probationary Admission by petitioning the Director of Admissions.

A person who is awarded Probationary Admission needs to reduce his quality point deficiency by as many as four points in order to continue the following quarter. Due to limited academic and residence hall accommodations, Probationary Admission is available to the main campus for the summer quarter and the academic centers and Firelands Campus for all quarters of the academic year.

The transfer student who wishes to enroll at the University as an undergraduate uses the regular Application Form. The University requires a record of the applicant's high school studies from the principal or guidance director of the high school from which he has been graduated.

An official transcript of credit is required from each college and/or university that the student has attended. This transcript must be mailed to the Director of Admissions by the institution and is not accepted from the student. In addition, a transfer recommendation card must be completed by the personnel dean of the last institution attended, and sent directly to the Dean of Students at Bowling Green State University. This card must be on file before formal admission can be granted.

SPECIAL ENROLLMENT METHODS

Regular freshman and transfer students are fully matriculated and eligible to pursue degrees from Bowling Green State University. Other students may be approved to enroll for classes without formal admission to the University.

TRANSIENT STUDENT ENROLLMENT

A transient student is one from another college or university with credits to be transferred to that institution. An official statement is required from the parent institution prior to admission to show that the student is in good standing and has permission to take the course. If a transient student is not in continuous enrollment, another statement of good standing from the parent institution must be obtained.

UNCLASSIFIED STUDENT ENROLLMENT

An unclassified student is one not working toward a degree, usually a person taking courses for self-improvement or similar personal reasons. A student already holding a bachelor's degree or the equivalent may take a full or partial schedule of courses. An official statement of the degree earned or a transcript of credits is required. If an unclassified degree-holder is not in continuous enrollment, another official statement must be obtained.

A student who has not previously attended Bowling Green or another college or another college or university may accumulate a maximum of 12 quarter hours as an unclassified student at Firelands Campus.

READMISSION OF FORMER STUDENTS

A student who has not been in continuous attendance excluding summer school, must complete the Application for Readmission Form.

CLASSIFICATION OF STUDENTS

A student is classified as follows in a baccalaureate degree program requiring a total of 183 quarter hours: freshman, 0-44 hours; sophomore, 45-89 hours; junior, 90-134 hours; senior, 135 hours to graduation.

Regular students admitted as new freshmen or transfers are classified on the basis of degree program and credit hours completed. Transients, unclassifieds, and degree-holders do not receive classification (i.e. freshman, sophomore, etc.) since they are not following regular degree programs.

APPLICATION FEE

An Application Fee of \$25 must accompany an Application for Admission. The Application Fee is refunded only if the student is denied admission to the University.

REGISTRATION FOR CLASSES

A student may register for classes on the dates specified in the Firelands Campus calendar. Registration dates at the Fostoria and Fremont Centers may be obtained from the Firelands Campus office. Registrations for Firelands courses can be accepted only at Firelands Campus at the times specified and will not be processed at the main campus or at the academic centers.

Additions or deletions from the original schedule of courses should be made by a Change of Schedule form. A student should not register more than once. A Change of Schedule fee of \$3 is made for any change in registration after a schedule of courses has been submitted by a student.

No student may enroll in a course later than seven calendar days after the beginning of classes in any quarter.

CHANGES IN REGISTRATION

Change of Course

After classes begin, all schedule changes must be approved by the Student Services Office.

Withdrawal from a Course

An undergraduate may drop a course during the first three weeks of a quarter with a grade of W. A student who drops a course during the fourth through the sixth week of a quarter receives a grade of WP or WF according to his standing in the course. A grade of WF is assigned to courses dropped after the sixth week of a quarter. A student should not terminate his class attendance without completing the official Withdrawal Notice or Change of Schedule form. Students who register and later decide not to enroll prior to the beginning of classes should correspond with Firelands Campus to communicate their intentions.

Change of College within the University

A student who wishes to change his registration from one college to another must initiate the change through the dean of the college in which he currently is enrolled.

Withdrawal from the University

A student who wishes to withdraw from the University in good standing must obtain the permission of the Dean of the Firelands Campus and must complete the official Withdrawal Notice available for the purpose.

If a student withdraws from the University with permission, he has a mark of W recorded in all courses unless he has previously withdrawn from a course with WF. A student who withdraws from the University within three weeks of the end of the quarter is not permitted to enroll for the next quarter except by special permission of his academic dean.

If a student leaves the University without proper notice and permission, he receives a mark of WF in all courses. He is not entitled to any refund of fees nor to a certificate of honorable dismissal.

GRADING SYSTEM

The following system of marks is used in reporting and recording a student's proficiency in his courses: A — excellent; B — good; C — acceptable; D — poor, but passing; F — failure.

In a few courses, such as student teaching and Library Science 491, the only marks given are S — satisfactory and F — failure.

In the Honors Seminars; internship courses; remedial courses; and the required course in health and physical education, H.P.E. 100, the marks used are S — satisfactory and F — failure.

A student may request the S-U grading option in as many as twelve courses in a baccalaureate degree program in addition to courses universally graded on an S-U basis. The student is permitted more than one S-U option in a quarter providing the number of such registrations does not exceed three in an academic year or four in an academic year and the succeeding summer quarter. The option must be declared at the Student Services Office no later than seven calendar days after the beginning of classes for a quarter. The S-U option is permitted in courses taken as fulfillment of major, minor, and group requirements or electives in accordance with standards established by the appropriate undergraduate college and departmental councils. College and departmental standards on S-U options are available to the student through his academic adviser.

A grade of S is interpreted as falling within the range of A to C and carries full credit. A grade of U is interpreted as D to F and carries no credit. Neither grade is considered in the accumulative point average.

When a student withdraws from a course with the permission of the dean of his college, the course is marked W — withdrawn; WP — withdrawn passing; or WF — withdrawn failing.

REPEATING A COURSE

When a student repeats a course in which he has received a failing grade, or has received a "D" grade in a course in which a grade of at least "C" is prerequisite for another course, only the second grade will be utilized in computing his point average.

ACADEMIC STANDING

A student who is enrolled at Firelands or at the main campus is placed on warning, probation, or in a dropped status only after he has received marks for a minimum of 9 hours.

ACADEMIC WARNING

The freshman or sophomore is warned of unsatisfactory progress when his accumulative point hours and quality points indicate that he is deficient from a C (2.0) average by more than 5 quality points.

ACADEMIC PROBATION

The academic standing of a freshman or sophomore is considered unsatisfactory and he is placed on academic probation when his accumulative point hours and quality points indicate that he is deficient from a C (2.0) average by more than 10 quality points.

The academic standing of a junior or senior is considered unsatisfactory and he is placed on academic probation when his accumulative point hours and quality points indicate that he is deficient from a 2.0 average by more than 5 quality points.

A student on probation because of unsatisfactory academic standing must follow a restricted program as follows:

1. His course load must not exceed 16 hours and may be less if so determined by his college dean;
2. He may not take part as a performer, an officer, or an active participant in any intercollegiate activity, meeting or conference except that an activity begun in any quarter may be completed in the following quarter.

ACADEMIC DISMISSAL

A freshman or sophomore student is academically dismissed from the University when his accumulative point hours and quality points indicate that he is deficient from a 2.0 average by more than 15 quality points.

The junior or senior student is academically dismissed when he is deficient from a 2.0 accumulative average by more than 10 quality points.

A notice of warning, probation, or dismissal is sent by the University both to the student and to his parents or guardian.

A junior or senior who is in good standing at the beginning of the fall quarter may enroll for the winter and spring quarters of the same year without regard to his academic standing at the close of the preceding quarter.

COURSES AVAILABLE FOR NEW STUDENTS

A student who plans to begin classes in any quarter may enroll only in courses which do not require prerequisites as listed in this bulletin.

UNIVERSITY HONORS

A student who demonstrates a high level of excellence in his academic work has his name placed on the University Honors List. The requirement for achieving the University Honors List is a point average of 3.5 or above in the preceding quarter.

UNIVERSITY REGULATIONS

All regulations published in the University *Bulletin* apply to Firelands Campus. In addition, the *Student Guide* documents the student's relationship to the University community and outlines the procedural guidelines of student discipline. Every student should examine the *Bulletin* and *Student Guide* and be familiar with their contents.

A student found guilty of violating or dishonoring University regulations or of being involved in moral or ethical misconduct may be dismissed. When, in the judgment of University officials, a student's actions are deleterious to others or threaten the orderliness and well-being of the University, he may be dismissed.

The student is held responsible for apparatus he loses or damages and for

materials he wastes in class and/or in laboratories. This does not apply to wear resulting from normal usage.

ACADEMIC HONESTY

One of the objectives of University policy on academic honesty is to communicate to all members of the University community the conviction of the University and its faculty that cheating and plagiarism are destructive to the central purposes of the University and are universally disapproved. In addition, the policy statement provides procedures for accomplishing these objectives by the student body, faculty, academic deans, and the University Academic Honesty Committee.

Included among these procedures are the following provisions:

1. Each faculty member should include in his introduction to a course a statement of his policies with regard to cheating and plagiarism;
2. Every instance of academic dishonesty must be reported to the dean of the college in which the student is enrolled, and to the dean of the college in which the course is taught, and to the Dean of Students, either by the instructor or by a student in the class where the incident occurs;
3. Penalties for offenses may range from warning to expulsion; a range of penalties for each particular type of offense is listed in the policy statement;
4. The University Academic Honesty Committee shall have appellate jurisdiction in cases of academic dishonesty. The academic dean assessing a penalty shall inform the student in writing of his right to appeal. An appeal must be initiated in writing within ten days of the date on which the student receives notice of the penalty. An appeal may be based on new evidence or on procedural errors in the proceedings leading to the assessment of the penalty;
5. The complete statement of policy is published in all editions of the Student and Faculty Handbooks.

CLASS ATTENDANCE

A student is expected to attend regularly all classes for which he is enrolled. Instructors announce individual attendance policies during the first week of classes.

FEES AND CHARGES

The student who attends Firelands Campus of Bowling Green State University pays lower fees than one who attends classes in Bowling Green. A student enrolled for 10 or more lower division hours pays a fee of \$235 per quarter.

A student who registers for 1 to 9 hours pays a fee of \$24.00 per quarter hour.

A student who is not a legal resident of Ohio, as defined by the University *Bulletin*, pays a nonresident fee.

PAYMENT OF FEES AND CHARGES

All fees and charges are payable in advance of the quarter for which the student is enrolled.

A student who pays his fees after the last day designated for this purpose is assessed a Late Registration Charge of \$5 for each day he is late, including Saturdays and Sundays.

REFUND OF FEES

In case of a student's formal withdrawal from the University in any quarter, fees, except for the Application Fee, are refunded on the following basis: during the calendar week (Sunday through Saturday) in which classes begin, 90 per cent; during the second calendar week, 80 per cent; during the third calendar week, 60 per cent; during the fourth calendar week, 40 per cent; after the fourth week, no refund. A student withdrawing under discipline forfeits all rights to the return of any portion of his fees. A student who stops attending classes and does not complete a formal Withdrawal Notice is not entitled to any refund.

UPPER DIVISION COURSES

Firelands Campus is intended primarily to serve the higher educational needs of the student in his freshman and sophomore years of college. However, an important function of Firelands, as part of Bowling Green State University, is to provide opportunities for some study at the junior, senior, and (occasionally) graduate levels. The administration of these courses is the responsibility of the Office of Continuing Education in Bowling Green.

Every reasonable consideration is given to requests for upper-level courses and for lower-level courses not scheduled to be offered at Firelands during a given quarter.

A person interested in such courses is encouraged to complete a Course Request Form obtainable at the Office of the Dean.

THE FIRELANDS CAMPUS BULLETIN

The *Fireland Campus Bulletin* is intended as a supplement to the University's *General Bulletin*. Therefore, a student who applies for admission to the University is urged to read carefully the *General Bulletin* of Bowling Green State University mailed by the Office of Admissions to every person making application as a regular student. A continuing or former student may secure a copy of the *General Bulletin* by addressing a request to the Office of Admissions.

All information in the *Firelands Campus Bulletin* is intended to conform to University policy. In the event of seemingly contradictory information, a student is urged to request clarification from the Office of the Dean of Firelands Campus.

For additional information, write or call:

Firelands Campus
901 Rye Beach Road
Huron, Ohio 44839
Phone: 419/433-5560

or

Director of Admissions
Bowling Green State University
Bowling Green, Ohio 43403
Phone: 372-2086

● STUDENT ACTIVITIES

STUDENTS

Firelands Campus opened in September, 1968, with 700 students. The enrollment has been marked by steady growth since that time. Students are primarily from the tri-county area of Ohio, including Erie, Huron, and Ottawa Counties. An increasing number of students are enrolling from other parts of Ohio, and each term some students come from out-of-state.

The campus expects an enrollment in excess of 1,200 in the fall term, 1972. Approximately one-half will be full-time students. An enrollment ceiling has not been established for the campus, although facilities can accommodate 2000.

Activities and programs have developed at the campus primarily through student initiative. Every attempt has been made to encourage students to assist in the development of co-curricular programs of relevance to their interests and attitudes. Many activities now functioning at the campus are described in this publication.

● STUDENT GOVERNMENT

The Student Advisory Board, made up of the Student Senate and the Cabinet, is elected each fall. Since the first election in 1969, the S.A.B. has assumed an important role in the growth of the new campus. Sponsoring cultural, social, and educational programs in addition to its functions in campus government, the Board has been creative and innovative in its activities. Involvement in a variety of projects, plus a conscious effort to include as many students as possible, allows the S.A.B. to meet the needs of students.

In conjunction with the Student Services Office, activities spanning the breadth of today's society are planned. A Programming Committee which operates over the summer months guarantees continuity. Drawing ideas from the main campus but emphasizing a fresh approach, allows Firelands students numerous options for involvement.

STUDENT PUBLICATIONS

The first issue of the newspaper, *The Lamp*, was one sheet of news put out by Barb Doughty, a student from Norwalk, on October 6, 1969. Then, with a small staff, a dream of creating a medium to disseminate information, establish a common denominator for announcements and comments, and provide a voice for student opinion, the second issue was printed one week later. *The Lamp* staff now exceeds 25 students, journalism courses are experiencing increased enrollments, and *The Lamp* has developed into a fine publication. *The Lamp* encourages contributions from students and faculty members and provides an opportunity for staff positions to all who are interested.

A literary publication of poems and prose authored by Firelands students and faculty members is published each spring. The success of this project signifies increasing interest in cultural and artistic ventures.

STUDENT DEVELOPMENT

Student Development endeavors to recruit students from minority and disadvantaged groups and, when they come to campus, to counsel and tutor them. Recruitment involves dissemination of information to supplement that which is generally available. A special effort is made to communicate accurate information concerning the academic programs, admissions, and financial aid procedures. Counseling and tutoring services rely upon student assistants to help new students adjust to the college environment and acquire study habits necessary for collegiate success.

THE SPEECH ACTIVITIES ORGANIZATION

The Speech Activities Organization has as a goal the improvement of communication on the campus. Further purposes of S.A.O. are to increase interest, foster achievement, and recognize accomplishment in the allied arts and crafts of the speech activities program.

This organization directly supports the Firelands Campus Forensics program, the Firelands Campus theatre program, and the Speech 102 program. These programs offer a wide variety of communication activities: acting pairs, debate, discussion, peace oratory, extemporaneous speaking, oral interpretation, original oratory, and two major theatrical offerings for the season.

Any student in good academic standing is eligible to join this organization.

PEP BAND

Known as The Firehorns, the Firelands pep band consists of students with instrumental musical talent and a passion for playing at basketball games. It supports the basketball program and entertains the spectators. Band membership is approximately twenty-five. The organization usually meets twice a week. It is not required that members be registered for the concert band in order to join the pep band.

The pep band holds regular elections of officers and is in operation only during the basketball season when it performs at home basketball games.

PEP CLUB

Pep Club is spirit . . . cheers . . . twenty-five screaming girls . . . work . . . fun . . . meetings . . . a chairman and co-chairman . . . practice . . . bus trips . . . teamwork . . . basketball games!

VETERANS CLUB

The Firelands Campus Veterans Club was organized in January, 1972. The purpose of the Veterans Club is four-fold:

1. To aid and assist incoming students who are veterans of the military service to adapt to the college community;
2. To coordinate veterans' affairs on campus;
3. To coordinate and sponsor campus social events individually and in conjunction with other student organizations;
4. To assist in promoting the general interest of Firelands Campus in the surrounding community areas.

Membership is open to all students, faculty, and staff who are veterans of the military services.

BOOKSTORES

The Firelands student has two sources of textbooks. The campus Bookstore is located off the student lounge in the Administration Building. There, new textbooks are sold at the same price as on the main campus of Bowling Green State University. Notebooks, Firelands T-Shirts, pens, University calendars, and other supplies also may be purchased.

The used Bookstore, sponsored by the Firelands Student Advisory Board, is located in the West Building. It is in operation for the first two weeks of each quarter, and is designed to help students sell their old books and purchase the ones they

need, in addition to providing revenue for the Student Advisory Board. At the beginning of the quarter, students wishing to sell their books may bring them to the used Bookstore and designate selling prices. After two weeks, students may pick up their money and unsold books.

In addition to the new and used Bookstores at Firelands, students are welcome to use any of the Bookstore facilities on Bowling Green's main campus.

INTRAMURALS

As almost one-half of the Firelands freshmen typically have participated in high school athletic programs, the rapid growth of intramurals is not surprising. Football, volleyball, basketball, bowling, softball, and a new sport — drift dunking — are included. The women, as well as the men, take part in intramural sports and even the faculty has teams. Several activities are coed, but most are contested on a traditional basis. The new IDEA facility in the Phase II building contains a gymnasium that will encourage expansion of the intramural program and increase the convenience for participants and spectators.

Some intramural all-star teams compete extra-murally in Ohio Branch Campus Tournaments. Such sports include softball, bowling, tennis, and golf.

INTERCOLLEGIATE BASKETBALL

The Firelands basketball team was inaugurated soon after the opening of the campus in 1968. The basketball program has made rapid advances and the 1971-72 season ended with a truly outstanding 15-6 record. Many top area basketball players are attracted to the campus. The Firelands Falcons compete with other Ohio Regional Campuses and junior varsity teams from such area colleges as Wooster, Ashland, Heidelberg, Findlay, and Baldwin-Wallace. The team has served to instill spirit in Firelands students and has acted as a force in unifying the student body.

CONCERT BAND

The Firelands concert band is one of the newer activities at Firelands. It gained official status as a credit course in September, 1971. The concert band is open to students with instrumental musical ability, and is graded on a "Satisfactory/Unsatisfactory" basis. The band meets twice weekly for 1½ hour sessions. The band presents three concerts each year: a Christmas concert in conjunction with the chorus and one each at the end of the winter and spring quarters.

SECRETARIAL ASSOCIATION

The Firelands Secretarial Association is open to students enrolled in the two-year associate degree program in business education. The club holds regular monthly meetings and is addressed by guest speakers who discuss topics concerning the business world. The club provides its members with insight into the business community and offers many opportunities for those who plan to obtain positions as secretaries and/or office managers.

FIREBELLES

The Firebelles is a vocal ensemble of coeds attending Firelands. It was formed in the spring of 1971. The group sings various types of music: contemporary, religious, and classical. The Firebelles have performed at campus functions and for many clubs and organizations in the neighboring areas as well as on Sandusky cable-TV.

CHEERLEADING

Spirit is something that abounds at Firelands — especially during the basketball season. Firelands spirit is promoted through the efforts of six very enthusiastic girls — the Firelands cheerleaders.

They keep the crowd roaring and cheering at all basketball games. The cheerleaders meet with the Pep Club to keep the club up-to-date on new cheers and to establish

specific patterns and motions to be coordinated with the cheers. Cheerleading tryouts are held in late October.

THE FIRECRACKERS

Another first for Firelands Campus came in the fall of 1971. The Firelands Campus drill team, better known as The Firecrackers, consisted of 12 girls at the time of its origin. The Firecrackers, in their red, white, and blue attire, performed at all home basketball games, thrilling the audiences with their precision drills. It is planned to expand the drill team to 25 members, so additional formations may be executed.

LIBRARY

The library of the Firelands Campus of Bowling Green State University invites students to take full advantage of the opportunities offered through its services and collections.

A Library Handbook is available in the library for your information about details of operation. Questions relative to the facilities are welcome, and all inquiries will be given consideration.

The Firelands library is established to serve the students, faculty, and public. Familiarity with the use of the library makes collected information and knowledge readily accessible for everyone's education and enjoyment.

FINANCIAL AIDS

A program of financial aids has been established and is available to Firelands students. It has been planned to provide scholarships, student loans, and opportunities for employment on an increasing basis. Information about this program is available through the Office of the Director of Student Services.

COURSE DESCRIPTIONS AND CURRICULA

The Arabic number in parentheses immediately following the title of the course indicates the number of hours of credit given for the course.

A course which is preceded by the letter E is offered by extension. Information about these courses may be obtained from the Office of the Dean of Firelands Campus.

APPLIED MATHEMATICS AND SCIENCE

110. DEVELOPMENTAL MATHEMATICS (3). Algebraic manipulation and solution techniques, graphical analysis, simultaneous equations, exponential notation and logarithms, useful results from plane geometry. Two 1-hour lectures and two 1½-hour recitations.

111. MATHEMATICS-PHYSICS I (6). Applications of algebra, graphical analysis, logarithms, geometry and trigonometry; scientific notation, measurements, units, computation aids and techniques. Laboratory emphasizes techniques of measurement and application of mathematical ideas. Two 2-hour lectures and two 2-hour laboratories.

121. APPLIED MATHEMATICS (5). Trigonometric functions, laws of sines and cosines, statistical analysis of data, application of matrices, mental arithmetic, use of slide rule, and application of basic calculus to maxima and minima, to approximation, and to computation of areas.

122. MATHEMATICS-PHYSICS II (6). Vectors, kinematics, dynamics, rotational dynamics, statics, conservation laws; application of calculus to maxima and minima, areas and approximation. Laboratory emphasis on mechanical measurements and devices. Two 2-hour lectures and two 2-hour laboratories.

133. MATHEMATICS-PHYSICS III (6). Thermal phenomena, electricity and magnetism and continued applications from previous mathematics. Laboratory emphasizes thermal and electromagnetic measurements and devices. Two 2-hour lectures and two 2-hour laboratories.

ART

101. INTRODUCTION TO ART (3). Introduction to the basic principles of art form, including experiences with the elements of graphic expression; a foundation course open to any student. Two lectures and two-hour studio.

102. ART FUNDAMENTALS (5). Introduction to the basic principles of art form, including experiences with the elements of graphic expression; a foundation course open to an art major or minor. Two lectures and three 2-hour studios.

103. DRAWING (3). Observation of natural objects as an aid to expressive draftsmanship. Six studio hours. Prerequisite or parallel: Art 101 or 102.

104. DRAWING (3). Art 103 continued. Principles of pictorial structure. Six studio hours. Prerequisite: Art 103.

112. BEGINNING DESIGN (3). Design theories as a basis for artistic expression. An introduction to three-dimensional design. Six studio hours.

Prerequisite or parallel: Art 101 or 102 or consent of the instructor.

145. HISTORY OF WESTERN ART I (3). History of ancient and early medieval art.

146. HISTORY OF WESTERN ART II (3). Medieval Renaissance, and Baroque art.

211. INTERMEDIATE DESIGN (3). Practice in problems of formal design, lettering, and layout. Six studio hours. Prerequisite: Art 101 or 102 or consent of the instructor.

212. INTERMEDIATE DESIGN (3). Exploration problems with an orientation toward product design. Six studio hours. Prerequisite: Art 104 or consent of the instructor.

213. INTERMEDIATE DESIGN (3). Studio problems in environmental concepts specifically related to interior and exterior spaces. Six studio hours. Prerequisite: Art 104 or consent of the instructor.

245. HISTORY OF WESTERN ART III (3). Nineteenth and twentieth century art.

ARTS AND SCIENCES

100. SEMINAR IN ARTS AND SCIENCES: PRINCIPLES OF PLAY PRODUCTION (3). Basic principles of theory and technique in designing, acting, and directing a play. Special projects assigned on topics like stage settings, characterization, and rehearsing a play. Attention will be given to individual needs. Laboratory hours to be arranged.

BIOLOGY

101. GENERAL BIOLOGY: MAN AND HIS ENVIRONMENT (5). Fundamental principles of biology and their relations to man and his environment. Emphasis on present environmental problems of air, water and land pollution, human reproduction, population dynamics, and modern health problems. Three 1-hour lectures, two 1-hour laboratories. Not accepted toward a biology major or minor.
104. GENERAL BIOLOGY (5). A course in fundamental principles and concepts of biology. Three 1-hour lectures, two 1-hour laboratories. Not accepted toward a biology major or minor.
106. GENERAL BOTANY AND MICROBIOLOGY (3). Fundamental principles of botany and microbiology at the organismic level; processes, morphology, life cycles and phylogeny of plants and microorganisms. Two lectures and one 2-hour laboratory. May be taken concurrently with Biology 107.
107. GENERAL ZOOLOGY (3). Fundamental principles of zoology at the organismic level; processes, morphology, life cycles and phylogeny of animals. Two lectures and one 2-hour laboratory. May be taken concurrently with Biology 106.
208. BASIC PHYSIOLOGY (5). Introduction to the study of functional properties of living things. Four lectures, one 3-hour laboratory. Prerequisite: Biology 106, 107, and one quarter of laboratory chemistry which may be taken concurrently.
213. ENVIRONMENTAL BIOLOGY (5). Introduction to the study of living organisms in relation to their environment and the fundamental principles of ecology. Three lectures, one 2-hour and one 3-hour laboratory. Prerequisite: Biology 106, 107, and one quarter of laboratory chemistry which may be taken concurrently.
- E321. ECONOMIC BIOLOGY I (4). Ecological aspects of control of invertebrate animals, the chemistry and action of insecticides and herbicides, equipment and methods of the pest control industry, and roles of various governmental agencies. Three 2-hour periods per week. Prerequisite: 15 hours of biology.
- E322. ECONOMIC BIOLOGY II (4). Ecological aspects of control of vertebrate animals; the chemistry and action of rodenticides; rodent, predator, and bird controls; zoonoses, public health sanitation, and sanitary biology; and roles of various governmental agencies. Three 2-hour periods per week. Prerequisite: 15 hours of biology.

BUSINESS ADMINISTRATION

102. INTRODUCTION TO BUSINESS (4). A background for American business — the market, competition and change, the nature and central role of management, our business environment. Open only to a freshman or sophomore.
- E303. BUSINESS COMMUNICATION (4). Effective communication of business information with emphasis on the psychological principles involved in securing action.

BUSINESS EDUCATION

101. BUSINESS MATHEMATICS (4). Mathematics of finance, merchandising, business ownership, taxation, and consumer problems.

111. BEGINNING TYPEWRITING (3). Principles of touch typewriting for personal and business use. Four class periods.
112. INTERMEDIATE TYPEWRITING (3). Development of skill through improvement of technique and solving special problems. Four class periods. Prerequisite: one year of high school typewriting or Business Education 111.
210. ADVANCED TYPEWRITING (3). Typewriting problems and projects with emphasis on office production standards. Four class periods. Prerequisite: two years of high school typewriting or Business Education 112.
211. OFFICE REPRODUCTION PROCESSES (3). Uses, limitations, costs of modern office reproduction equipment and processes including development of skill in their use. Prerequisite: Business Education 112 or equivalent.
213. BEGINNING SHORTHAND THEORY (3). Principles of Gregg Diamond Jubilee shorthand.
214. INTERMEDIATE SHORTHAND THEORY (3). A continuation of the principles of Gregg shorthand with an introduction to transcription. Prerequisite: one year of high school shorthand or Business Education 213.
215. ADVANCED SHORTHAND THEORY (3). Development of speed in recording dictation and transcribing. Prerequisite: two years of high school shorthand or Business Education 214.
220. DATA PROCESSING I (3). Introduction to machine processing of data using various small calculators — rotary, printing, and electronic. Three class periods plus assigned laboratories.
230. RECORDS MANAGEMENT (3). Principles of paperwork control in an organization from the creation of records to their final storage or destruction.
240. BUSINESS PROBLEMS OF THE CONSUMER (4). Relationship of business practices to consumer activities. Ways of improving standard of living of individuals and groups through developing competencies in buying, using goods and services, money management.
- E311. DICTATION AND TRANSCRIPTION (3). Dictation at high speed rates with emphasis on rapid and accurate transcription. Prerequisite: Business Education 112, 215 or equivalent.
- E312. ADVANCED DICTATION AND TRANSCRIPTION (3). Development of a technical vocabulary, short cuts to speed dictation, and office-style dictation. Prerequisite: Business Education E311.
- E314. INTERNSHIP IN BUSINESS EDUCATION (1-3). Supervised experience in local offices or businesses. Forty clock hours of work required for each hour of college credit. May be repeated to 3 hours. No more than 1 hour of credit may be granted for work in any one office or business firm.
- E321. DATA PROCESSING II (3). Introduction to punch card and other input-output media in automated data processing. Practice in using unit record equipment. Introduction to computers and computer languages. Three class periods plus assigned laboratories.
- E401. SECRETARIAL ADMINISTRATION (5). An intensive study of the procedures, skills, and knowledge which are the basis for administrative level positions. Prerequisite: Business Education 210, 311.

BUSINESS LAW

E301. GENERAL BUSINESS LAW (4). Historical, political, economic background to the study of business law. Origin, development, fundamentals of contracts. Economic role of contracts in facilitating goods and services. Prerequisite: Economics 202.

CHEMISTRY

100. INTRODUCTION TO CHEMISTRY (4).

A non-laboratory course; not open to a major or minor in chemistry.

111. ELEMENTARY CHEMISTRY (4). Three lectures and one 3-hour laboratory. Not accepted toward a chemistry major or minor unless followed by Chemistry 122. Prerequisite: two years of high school science and/or mathematics.

112. ELEMENTARY CHEMISTRY (4). Chemistry 111 continued. Three lectures, one 3-hour laboratory. Prerequisite: Chemistry 111 or 121.

121. GENERAL CHEMISTRY (5). Two lectures, one recitation, and four hours of laboratory.

Prerequisite: demonstration of proficiency equivalent to one year of high school algebra.

122. GENERAL CHEMISTRY (5). Chemistry 121 continued. Two lectures, one recitation, and four hours of laboratory. Prerequisite: Chemistry 121; Chemistry 111 with consent of instructor.

123. GENERAL CHEMISTRY (5). Chemistry 122 continued. Approximately one-half quarter is devoted to qualitative analysis. Two lectures, one recitation, and four hours of laboratory. Prerequisite: Chemistry 122.

213. BIO-ORGANIC CHEMISTRY FOR NON-SCIENCE MAJORS (4). Chemistry 112 continued. A brief introduction to organic chemistry, with some biochemistry. Prerequisite: Chemistry 112 or, with consent of instructor, Chemistry 123. Not recommended for science majors. Credit may not be received for both Chemistry 213 and Chemistry 306. Three lectures and one three-hour laboratory per week.

Note: A student may not receive credit for more than one course in any of the following groups: Chemistry 100, 111, 121; Chemistry 112, 122.

COMPUTER SCIENCE

101. INTRODUCTION TO COMPUTING I (4). Algorithms; flowcharting; basic elements of a higher-level language; introduction to computer organization and machine language. Analysis of several numerical and non-numerical problems and their solutions using a higher level language. Use of an interactive programming system.

102. INTRODUCTION TO COMPUTING II (4). Continued study and use of the programming language learned in Computer Science 101 involving projects in simulation, applications in computer science and use of various data and storage structures. Numeration systems. Assembly language for a hypothetical machine. Prerequisite: Computer Science 101.

201. COMPUTERS AND PROGRAMMING I (4). Computer structure, data representation, system software bootstrap loaders, assemblers, relocatable loaders, interpreters' principles of programming loops, subroutines and macros, recursion, re-entrant programs; the assembler language of a typical small computer. Prerequisite: Computer Science 102.

203. LOGICAL FOUNDATIONS OF COMPUTING (4). Topics from basic set algebra, algebraic structures, Boolean Algebra; and graph theory with applications of the concepts in computer science. Prerequisite: Computer Science 102.

COMPUTER SCIENCE TECHNOLOGY

131. ELECTRONIC DATA PROCESSING LABORATORY I (4). Continued theory and the development of programming, operational procedures and data processing skills. The student will be scheduled for computer use time with instructor assistance. Eight hours of laboratory a week.

212. ELECTRONIC DATA PROCESSING LABORATORY II (2). Continued theory and the development of programming, operational procedures and data processing skills. The student will be scheduled for computer use time with instructor assistance. Four hours of laboratory.

221. SYSTEMS AND PROCEDURES I (3). Analysis of business information systems with consideration given to designing a business system, file design and audit controls. Techniques for implementing basic systems such as principles of flowcharting, systems documentation and business forms control. Two hours of lecture and two hours of laboratory.

231. ELECTRONIC DATA PROCESSING SEMINAR (4). Special readings and guided study on topics of particular interest to graduating students. One hour of consultation and six hours of independent laboratory experience.

232. SYSTEMS AND PROCEDURES II (3). Continued study of principles in the design and applications of data processing systems in business. Analysis of cost controls, operations research and the integrated management information system.

233. ELECTRONICS DATA PROCESSING LABORATORY III (6). This course gives the student an opportunity to initiate and carry out a project selected from outside the school. The design and implementation of this project will be the responsibility of the student with minimum instructor assistance.

260. TECHNIQUES OF COBOL PROGRAMMING (4). Detailed study of the COBOL programming language and techniques for its use; execution-time program structures; segmentation; overlays; report generation; table handling; sorting; file handling techniques; comparison with other languages; COBOL standards.

ECONOMICS

200. INTRODUCTION TO ECONOMICS (4). Government expenditures and taxation, money and banking, poverty, capitalism and its alternatives. Economic impact of large corporations. Not open to the student who is required to complete Economics 201.

201. PRINCIPLES OF ECONOMICS (4). Nature of economics; fundamentals of supply and demand; national income and employment; the banking system; monetary and fiscal policy; economic growth and stabilization. Prerequisite: sophomore standing.
202. PRINCIPLES OF ECONOMICS (4). Economics 201 continued. Theory of price and product market analysis; factor markets and distribution of income; international economics; current economic problems and public policy. Prerequisite: Economics 200 or 201.

ENGLISH

111. INTRODUCTORY WRITING (4). Spontaneous and structured writing of the informal essay with emphasis on basic writing skills. Placement by ACT scores and essay.
112. VARIETIES OF WRITING (4). Development of writing skills, including documentation, with specific subject sub-titles (Creative Writing, American Values in Transition, for example). Placement by ACT scores and essay or successful completion of English 111.
161. WORLD LITERATURE (4). Masterpieces of world literature to 1400, including such authors as Homer, Confucius, Aeschylus, Sophocles, Plato, Aristophanes, Virgil, and Dante.
162. WORLD LITERATURE (4). Masterpieces of world literature since 1400, including such authors as Montaigne, Cervantes, Goethe, Hugo, Balzac, Dostoyevski, Kafka. Not open for credit to a student who has received credit for English 161 before June, 1965.
202. INTRODUCTION TO POETRY (4). Study of poetry as a type of literature through a selection of great poems, past and present. Prerequisite: English 112.
203. INTRODUCTION TO DRAMA (4). Study of drama as a type of literature through a selected group of representative plays, past and present. Prerequisite: English 112.
204. INTRODUCTION TO FICTION (4). A study of fiction designed to develop appreciation of the short story and the novel as literary forms. Prerequisite: English 112.
208. CREATIVE WRITING (4). Supervised writing in both poetry and fiction, with group discussions and concentration on the shorter forms. May be repeated once. Prerequisite: English 112 or equivalent.
260. INTRODUCTION TO POPULAR CULTURE (5). Examination of the various types of culture and media which affect our lives — their artistic and aesthetic accomplishments and failures, their obvious and subtle forces and influences. Prerequisite: English 112 or equivalent.

ENVIRONMENTAL TECHNOLOGY

110. MICROBIOLOGY FOR WATER AND FOOD (5). An introduction to the fundamentals of microbiology pertinent to food storage and service and water and waste water treatment. Three hours of lecture and four hours of laboratory. Prerequisite: Physical Science 101: one course in biology.
121. ENVIRONMENTAL SEMINAR (2). Discussion of current topics in environmental technology.

141. CONTEMPORARY PROBLEMS IN ^{Ecology} BIOLOGY (4). Biological implications of man's effect on the environment. Introduction to environmental problems of air, water, and land pollution as they relate to the environmental technologist.
142. ^{General} GENERAL BIOLOGY (4). General survey of plant and animal kingdoms with emphasis on those groups most associated with environmental problems and the technologist. ¹²⁸ Three hours of lecture and two hours of laboratory.
210. BIOLOGICAL EFFECTS OF AIR POLLUTION AND BASIS FOR QUALITY STANDARDS (3). Sources and forms of air pollution, physiological responses of target organisms, and the nature of air standards. Prerequisite: sophomore standing in Environmental Technology.
214. SANITARY CHEMISTRY FOR WATER (5). Theory and laboratory techniques for all control tests of water purification including: bacteriology, color, turbidity, pH, alkalinity, hardness, coagulations, chlorides, fluorides, iron, manganese, detergents, bactericides and nitrates. Three hours of lecture and four hours of laboratory or field trips.
220. WATER SUPPLY AND WASTE WATER CONTROL (5). An introduction to the elementary engineering aspects of water supply and distribution; waste water collection, removal and disposal. Three hours of lecture and four hours of laboratory or field study. Prerequisite: sophomore standing in Environmental Technology.
221. ENVIRONMENTAL SEMINAR II (2). Discussion of legal and organizational aspects of pollution control.
243. ENVIRONMENTAL BIOLOGY (3). Introduction to the fundamental principles of ecology with emphasis on aquatic and terrestrial ecosystems. Two hours of lecture and two hours of laboratory.
260. METHODS OF CONTROL OF INDUSTRIAL AIR POLLUTANTS (5). Techniques and equipment used in modern air quality programs. Three hours of lecture and four hours of laboratory or field study.

EXPERIMENTAL STUDIES

- 101, 301. SEMINAR (4). Offered on various topics. May be repeated to 16 hours.

GEOGRAPHY

121. WORLD GEOGRAPHY I: EURASIA AND AFRICA (3). Geographical analysis of selected topics in Asia, Africa, and Europe. The ecological aspects of the cultural, political, and economic problems of these regions are emphasized. Open only to a freshman or sophomore.
122. WORLD GEOGRAPHY II: THE AMERICAS AND THE PACIFIC (3). Analysis of aspects of geography concerned with man and his inter-relationships with his physical environment. Open only to a freshman or sophomore.
125. WEATHER AND CLIMATE (3). Fundamentals of physical geography with emphasis on earth-sun relationships, elements of weather and climate, and climatic types and their distribution. Two 1-hour lectures and one 2-hour laboratory.

126. VEGETATION AND SOILS (3). Fundamentals of physical geography with emphasis on distribution and classification of vegetation and soil and the representation of the earth on maps. Two 1-hour lectures and one 2-hour laboratory.

127. LANDFORM DEVELOPMENT AND DISTRIBUTION (3). Fundamentals of physical geography with emphasis on processes of landform development, world-wide distribution of landforms, and physiographic features and regions of the U.S. Two one-hour lectures and one two-hour laboratory. Geography 126 is recommended.

213. METEOROLOGY (5). Fundamental physical processes of the atmosphere and their relationship to the daily weather pattern. Prerequisite: Geography 125 or consent of the instructor.

225. ECONOMIC GEOGRAPHY (5). Systematic study of world distribution of the primary, secondary, and tertiary activities of mankind with emphasis on geographic and economic factors affecting the distribution and location of economic activity.

230. CULTURAL GEOGRAPHY (5). Introduction to cultural geography stressing definition of cultural elements of the landscape and their distribution and interpretation.

244. ELEMENTS OF PHYSICAL GEOGRAPHY AND SURVEYING (5). An introduction to climate, soil and vegetation; their classification and distribution with emphasis on their interrelationships. Other topics include the principles of surveying and field practice. Three hours of lecture and four hours of laboratory.

GEOLOGY

100. INTRODUCTION TO GEOLOGY (4). The earth; physical and historical geology; and the economic, social, and philosophic aspects of the subject matter. Not open to a geology major or minor. Credit is not given for both Geology 100 and Geology 103 or 104.

103. GEOLOGIC MATERIALS (4). Introduction to common rocks and minerals and their mode of occurrence and origin. Three lectures and one 2-hour laboratory; one field trip is required. Credit is not given for both Geology 100 and 103.

104. GEOLOGICAL PROCESSES (4). Survey of the physical processes operating on and in the earth and of the landforms and geologic structures developed. Three lectures and one 2-hour laboratory; one field trip is required. Credit is not given for both Geology 100 and 104.

105. PRINCIPLES OF HISTORICAL GEOLOGY (4). Principles of stratigraphy, time, and evolution upon which the reconstruction of geologic history is based. Three lectures and one 2-hour laboratory; one field trip required.

210. INTRODUCTION TO ASTRONOMY (4). Description and discussion of the solar system, local stars and clusters, nebulae, galaxies, and the universe; modern cosmogonies and the limitations for the existence and evolution of life, and methods of celestial observations.

HEALTH AND PHYSICAL EDUCATION

100. GENERAL PHYSICAL EDUCATION (1).

Each freshman must complete three units from a wide selection of activities such as golf, tennis, swimming, etc. Two hours a week.

109. PERSONAL HEALTH (3). A basic course in personal hygiene.

110. COMMUNITY HEALTH (2). A basic course in all aspects of community health.

COURSES FOR MEN

261, 266. ADVANCED SPORTS SKILLS AND COACHING TECHNIQUES. Sports skills and coaching techniques in the following team sports. A Health and Physical Education major must elect a minimum of two courses. No student may take more than four courses for credit toward graduation. 261. BASKETBALL (3). 266. FOOTBALL (3).

HISTORY

151. WORLD CIVILIZATION: TO 1300 (4).

A broad cultural survey of the ancient Near Eastern and Eastern civilizations; Greece and Rome; medieval life and institutions; Asian civilization to 1300. A general introduction to the study of history; should be followed by History 152, 153.

152. WORLD CIVILIZATION: 1300 TO 1815 (4).

History 151 continued. Renaissance, Reformation; Age of Reason; commercial and industrial revolutions; Asian civilization, sixteenth-nineteenth centuries; English and French revolutions.

153. WORLD CIVILIZATION: 1815 TO PRESENT (4). History 152 continued. Liberalism and nationalism; imperialism and world conflict; nineteenth and twentieth century science and culture; the world in the present age.

205. THE UNITED STATES TO 1865 (4). A survey of the political, constitutional, economic, and cultural development of the U.S. from its early settlement to the close of the Civil War.

206. THE UNITED STATES SINCE 1865 (4).

History 205 continued. Surveys the reconstruction period, growth of American industry; agricultural problems, progressive movement, World War I, postwar economic problems, New Deal, World War II, and aftermath.

280. ASIAN CIVILIZATION (4). A broad survey of history and civilizations of the major countries of Asia from the beginning to the present. Designed especially for beginners. Interdisciplinary approach.

HOME ECONOMICS

101. CLOTHING (3). Fundamentals of clothing construction using commercial patterns. Elements and principles of design related to clothing and wardrobe planning. One 1-hour period and two 2-hour periods.

102. CLOTHING (3). Home Economics 101 continued with emphasis on custom methods. Socio-psychological and economic aspects of clothing for the individual and the family. One 1-hour period and two 2-hour periods.

103. TEXTILES (4). Basic facts concerning fibers, yarns, and cloth construction; finishes; color and design; production costs; wearing qualities. Selection, buying, and care of fabrics for personal and household uses. Three 1-hour periods, and one 2-hour period.
105. PERSONAL AND FAMILY RELATIONSHIPS (4). Growth and development of the college student as an individual and in social relationships in the family, college, community; activities and functions of the present-day family.
205. HOME MANAGEMENT (4). The effect of values and philosophy on decisions regarding the use of family resources; time, energy, knowledge, ability, skills, and attitudes as they are used to achieve family goals. Principles of work simplification, history of discipline, and evaluation in home management.
206. HOUSEHOLD EQUIPMENT (4). Selection, operation, care, and arrangement of household equipment for safe operation and effective management. Prerequisite: Home Economics 205.
210. FOOD PREPARATION (3). Principles of food preparation. One 1-hour period and two 2-hour periods. Chemistry prerequisite is waived at Firelands.

INDUSTRIAL EDUCATION AND TECHNOLOGY

104. DESIGN AND ENGINEERING GRAPHICS I (4). Design as a process and engineering graphics as a vehicle to communicate problem solutions. Design analysis, sketching and instrument drawing applied to design problems involving industry and technology. Two hours of lecture and five hours of laboratory.
113. MATERIALS PROCESSING I (4). Processing equipment, methods, operations, procedures and design utilized in the production of non-metallic products; raw materials sources; and methods of conversion. Two hours of lecture and five hours of laboratory.
114. MATERIALS PROCESSING II (4). A study of material properties, fabricating equipment, and methods and procedures utilized in the production of metallic products. Two hours of lecture and five hours of laboratory.
121. INDUSTRIAL MATHEMATICS (5). Mathematics as applied in industry and technology. Problems in geometry, algebra, trigonometry, and calculus.
152. FOUNDATIONS OF INDUSTRIAL EDUCATION AND TECHNOLOGY (2). Evolution, roles, and interrelationships of the several forms of industrial education, emphasizing relationships to general education and technological and industrial development.
191. ENERGY, POWER, INSTRUMENTATION, AND CONTROL — AUTOMATION (4). Study of automation through the examination of energy conversion into useful electrical, fluid or mechanical power and associated transmission, instrumentation and controlling devices. Two hours of lecture and five hours of laboratory.
202. MECHANICAL DESIGN II (4). A continuation of Mechanical Design I. Consideration of economy, loading conditions, stresses, deformation, fits and finishes in design. Two hours of lecture and five hours of laboratory.
204. DESIGN AND ENGINEERING GRAPHICS II (5). The application of design analysis and engineering graphics, including descriptive geometry, vector analysis and graphical mathematics. Design problems in power generation and transmission, construction and manufacturing. Two hours of lecture and six hours of laboratory.
205. TOOL AND DIE DESIGN (4). Study of the importance and economies of tool design for mass production. Major areas include the layout and design of cutting tools, gauges, simple jigs, fixtures and dies. Two hours of lecture and five hours of laboratory.
206. JIG AND FIXTURE DESIGN (2). Continued application of the principles of jig and fixture design, including drilling, milling, welding and inspection fixtures; standard drill jigs, and the economics of jigs and fixtures. One hour of lecture and three hours of laboratory.
207. COMPUTER GRAPHICS (3). Consideration and application of modern techniques and equipment used in computer-controlled drafting. Two hours of lecture and three hours of laboratory.
208. GRAPHIC COMMUNICATIONS (4). Broad exploration in the graphic communications area. Study and experience in design, copy-preparation, photo-conversion, image carriers, and image transfer methods. Two hours of lecture and five hours of laboratory.
210. FLUID SYSTEMS (3). A study of the basic components of hydraulic and pneumatic systems as used for industrial power control and transmission. Two hours of lecture and three hours of laboratory.
211. MANUFACTURING PROCESSES I — FORMING (4). An introduction to both traditional and non-traditional forming processes. Topics include spinning, casting, die-casting, forging and extruding. Two hours of lecture and five hours of laboratory.
212. MANUFACTURING PROCESSES II — COMBINING (4). Topics include traditional joining processes such as electric arc, inert gas, submerged arc and oxygen-acetylene welding; and non-traditional processes such as plasma arc, explosive, laser, ultrasonic and electron beam methods of combining materials. Two hours of lecture and five hours of laboratory.
213. NON-TRADITIONAL MANUFACTURING PROCESSES III (4). An introduction to non-traditional machining processes including numerical control, EDM, ECM, laser machining, ion machining and ultrasonic machining. Two hours of lecture and five hours of laboratory.
214. MANUFACTURING PROCESSES (4). Processing methods, equipment, tooling organization and control employed in production of metallic and non-metallic products. Two hours of lecture and five hours of laboratory.
215. METALLURGY (4). Introduction to the basic concepts of physical metallurgy and heat treatment of metals. Topics include metal structure, alloys, tempering, tool steels and powder metallurgy. Two hours of lecture and five hours of laboratory.
216. METROLOGY (4). Study of instruments and machines for measuring dimensions and surface finishes of machine parts to meet established standards. Discussion of the concepts and procedures involved in quality control and inspection. Two hours of lecture and five hours of laboratory.

217. PRODUCTION PLANNING AND CONTROL

(4). Detailed study of various production activities and the problems associated with them through the use of case studies and personal experiences of guest speakers.

218. MANAGEMENT AND SUPERVISION (3).

Discussions of the responsibilities of management and supervision within the manufacturing industries. Topics include organization, duties and responsibilities, human relations, training, promotion, quality and quality control and management-employee relations.

224. GRAPHICS (3). An introduction to graphic communications for Environmental Technology majors. Topics include graphic fundamentals, elementary surveying and topographical mapping. Two hours of lecture and three hours of laboratory.

235. CONSTRUCTION TECHNOLOGY (4).

Construction problems and orderly solutions of problems related to construction, including architectural representation, conventions, construction procedures and building estimation. Three hours of lecture and three hours of laboratory.

241. ELECTRICITY AND ELECTRONICS (3).

Investigation of many topics in electricity and electronics of interest to students majoring in related technical areas. Content ranges from basic electricity to industrial instrumentation and control. Two hours of lecture and three hours of laboratory.

242. MECHANICS (STATICS) (4). Application of the laws of equilibrium as introduced in Mathematics-Physics II. Topics include planar and coplanar force systems, structure analysis, trusses, friction, centroids, moments of inertia and vector solutions.

243. STRENGTH OF MATERIALS (4). A comprehensive study of simple and combined stresses, deformation, shear, torsion and deflection of machine parts and structural members. Three hours of lecture and three hours of laboratory.

244. COMMUNICATION CIRCUITS (3). An introduction to fundamental communication circuits. Topics include amplifiers, oscillators, communication components and principles of receivers and transmitters. Two hours of lecture and three hours of laboratory.

245. COMMUNICATIONS SYSTEMS (3).

Applications of the principles of communication circuits to large and complex systems. Techniques of transmission and radiation of electromagnetic energy applied to pulse, television and microwave systems. Two hours of lecture and three hours of laboratory.

246. ELECTRONIC AMPLIFIERS (5). A study of representative principles of electronic amplification including experience in the techniques and skills required for the use and understanding of the devices encountered in electronic amplification and amplifiers. Three hours of lecture and five hours of laboratory.

247. ELECTRICAL MEASUREMENTS AND INSTRUMENTATION (5). A study of electrical measurement and instrumentation devices, transducers and elements; the principles underlying their design, use and relationships. Three hours of lecture and five hours of laboratory.

248. INDUSTRIAL EQUIPMENT AND CONTROLS

(5). Basic elements of automation and industrial control principles. Includes discussion and application of typical devices such as time control switches, motor controls, servomechanisms and photo-electric switches. Three hours of lecture and five hours of laboratory.

249. SPECIAL ELECTRONIC DESIGN PROBLEMS

(4). A study of new materials, techniques, components and devices which may have significant influence on the electronics industry. The student will have the opportunity to demonstrate his knowledge of electricity through solution of individual design problems. Six hours of recitation-laboratory.

291. ENERGY, POWER, INSTRUMENTATION AND CONTROL — CYBERNETICS (4). The study of cybernetics through the examination of systems logic, instruments, control and process regulation. Experiences in research and development requiring analysis and diagnosis of cybernetic systems. Two hours of lecture and five hours of laboratory.

304. MECHANICAL DESIGN (4). Design and selection of mechanical elements, fasteners, power transmitting devices, hydraulic systems and tools and dies. Standard manuals and commercial catalogs are utilized. Two hours of lecture and five hours of laboratory.

347. ELECTRICITY (5). Fundamental concepts of electricity including circuits and circuit concepts, power generation, alternating and direct current, meters, and test equipment. Two hours of lecture and six hours of laboratory.

348. ELECTRONICS (5). Semiconductors, electron tubes, and related circuits. Applications of power supplies, amplifiers, oscillators, and transmission and receiving systems. Two hours of lecture and six hours of laboratory.

JOURNALISM

103. INTRODUCTION TO MASS COMMUNICATIONS (4). Survey of modern journalism, including the newer mass communications media. Role and influence of the press, radio, television, and related fields of advertising and public relations.

204. NEWS WRITING (3). Practice in basic types of news stories with emphasis on news values, style, summary leads, organization of material. Prerequisite: Journalism 103.

LIBRARY AND EDUCATIONAL MEDIA

203. INTRODUCTION TO LIBRARIANSHIP (4). The history of books and libraries, the growth of the profession, types of libraries in the modern world, and varieties of library organization.

MANAGEMENT

E300. PRODUCTION AND OPERATIONS MANAGEMENT (4). Operations of the firm; fundamentals of operations research; design of production systems; operation, coordination, and control of production activity; major analytical tools for management; plant projects. Prerequisite: Statistics 212 or equivalent.

E305. PRINCIPLES OF ORGANIZATION AND MANAGEMENT (4). Fundamentals of organization theory; objectives, policies, decision-making authority, executive development, leadership, communication, attitude, and effective human relations as they are related to management principles.

MATHEMATICS

The student should enter the mathematics program at the point most appropriate to his preparation, interests, and course of study. Brief descriptions of the various options are given below to facilitate the choice of courses by the student and his adviser.

Mathematics 131-231-232 is the traditional calculus sequence for the well-qualified student and is a prerequisite for all upper division mathematics courses. Mathematics 130 is intended for the student who has an inadequate mathematics background for this sequence.

Mathematics 124-125 is a concept-oriented calculus and linear algebra sequence for students in the social and managerial sciences designed to prepare them for math-oriented courses in their areas.

Mathematics 121 and 122 are terminal courses designed to expose the student to selected topics in modern mathematics which lend themselves to treatment at a relatively unsophisticated level.

Where a course is listed as a prerequisite to another course, a grade of C or better is required. This requirement is in the best interest of the student and exceptions are made only with the consent of the instructor and the Chairman of the Mathematics Department.

121. TOPICS IN MODERN MATHEMATICS (5). The language of sets, introductory logic, and a study of the integers and rational numbers. Not open to the student who presents three or more years of high school mathematics or who has credit for any other college mathematics course. Prerequisite: one year of high school algebra.

122. TOPICS IN MODERN MATHEMATICS (4). A survey of calculus, algebra, probability, and other topics. For a student not expecting to continue mathematics. Not applicable to major or minor requirements. Prerequisite: three years of high school mathematics or Mathematics 121.

124. ELEMENTARY ANALYSIS I (5). Sets, functions, differential and integral calculus for functions of one variable with applications to the management and social sciences. Prerequisite: three years of high school mathematics or two years of high school algebra or consent of chairman.

125. ELEMENTARY ANALYSIS II (5). Continuation of Mathematics 124 including topics in matrix algebra, differential and integral calculus for functions of more than one variable with applications to the management and social sciences. Prerequisite: Mathematics 124 or Mathematics 131.

130. PRECALCULUS MATHEMATICS (5). Real and complex number systems, functions, coordinate geometry, and trigonometry. Not open to the student who presents four years of high school mathematics and has an ACT mathematics score of 26 or higher.

131. ANALYTICAL GEOMETRY AND CALCULUS (5). Plane analytic geometry and calculus of functions of one variable. Prerequisite: four years of high school mathematics and an ACT mathematics score of 23* or higher, or a grade of C or better in Mathematics 130 or consent of the department chairman.

241. ELEMENTARY MATHEMATICS (5). Set theory; set theoretic development of the natural numbers; numeration systems; rational numbers. For an elementary education major only. Not for Arts and Sciences credit.

242. ELEMENTARY MATHEMATICS (4). Percentage and its applications, an introduction to algebra and geometry, and mensuration. For an elementary education major only. Prerequisite: Mathematics 241.

* A student with an ACT mathematics score of 23, 24, or 25 should consult with his adviser or a mathematics department representative to decide between Math 130 or 131.

MUSIC

238. FIRELANDS CONCERT BAND (1). Open to any student possessing necessary musical ability who is interested in playing in concert band. The band makes appearances at school programs and other public affairs.

279. UNIVERSITY CHORUS (1). Open to any student possessing necessary musical ability who is interested in singing with large ensembles. Chorus makes appearances at school programs and other public affairs.

PHILOSOPHY

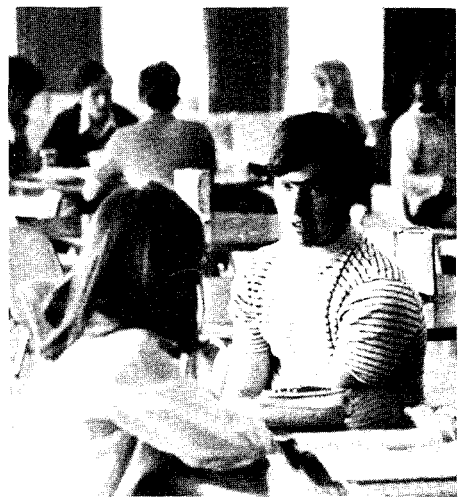
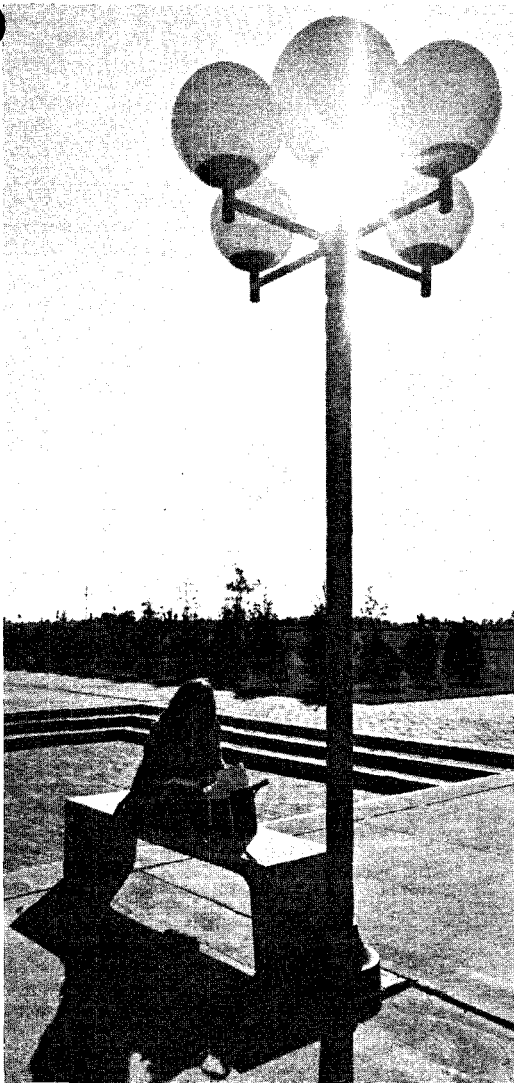
100. EXPERIMENTS IN PHILOSOPHY (4). An examination of various topics in philosophy. Subject matter will be designated in the time schedule. Experiments in teaching and subject matter are encouraged. Restricted to freshmen and sophomores.

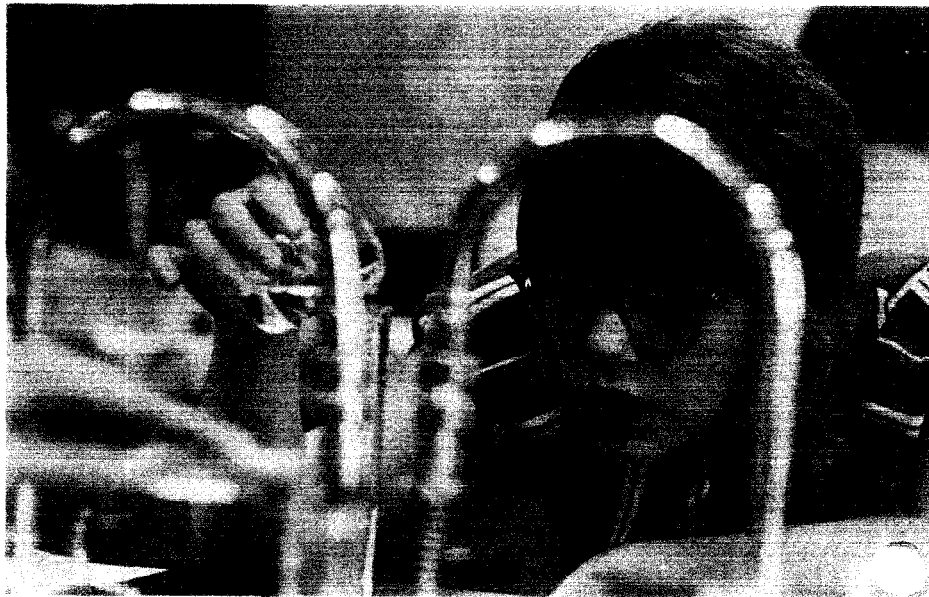
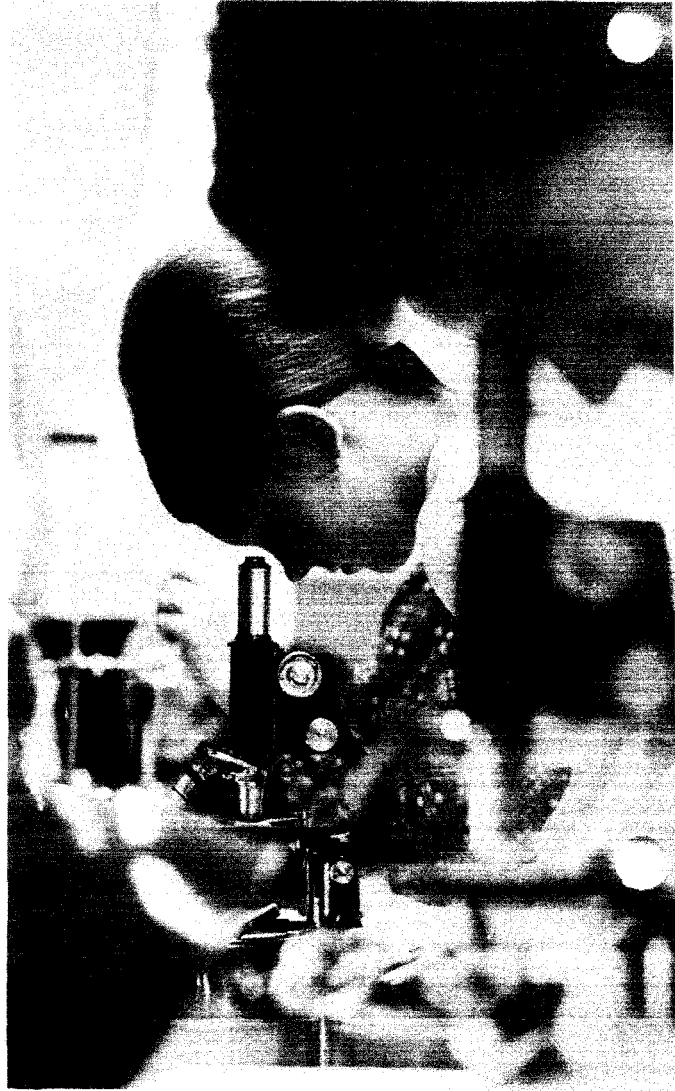
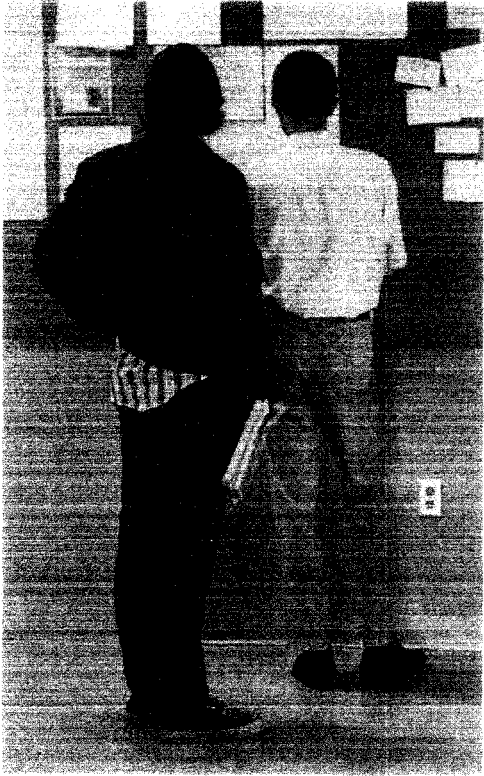
101. INTRODUCTION TO PHILOSOPHY (4). A discussion of the principal problems of philosophy: the existence of God, mind-body, origin and validity of knowledge, and freedom and determinism. Restricted to a freshman or sophomore student.

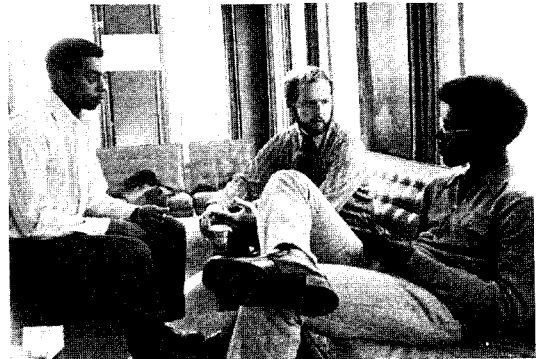
202. ETHICS (4). Inquiry into the meaning of good and evil and right and wrong in the context of contemporary moral issues. A senior may take this course only with the permission of the instructor.

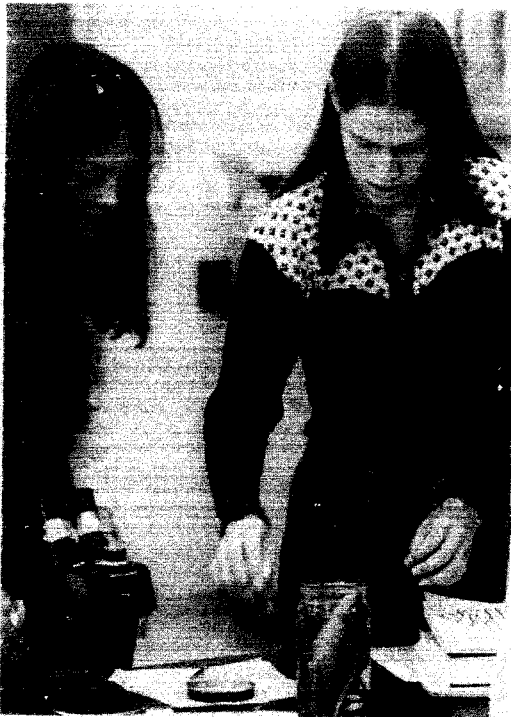
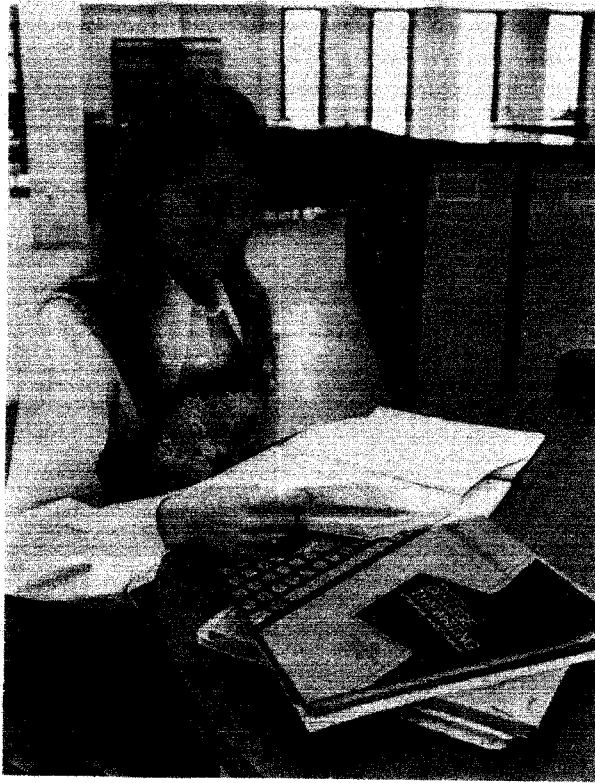
204. AESTHETICS (4). Nature and meaning of "beauty," approached historically and applied to present-day experience. Courses in art, music appreciation, and history are beneficial. A senior may take the course only with the permission of the instructor.

205. LOGIC (4). Analysis of different kinds of arguments, informal fallacies, and deductive relationships among statements. A student who has credit for Philosophy 303 may not register for this course.

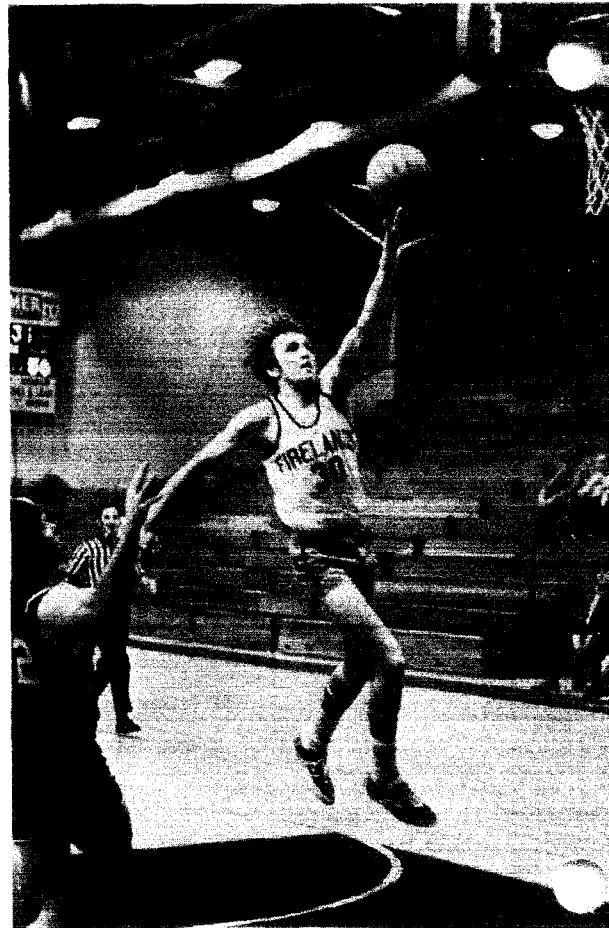
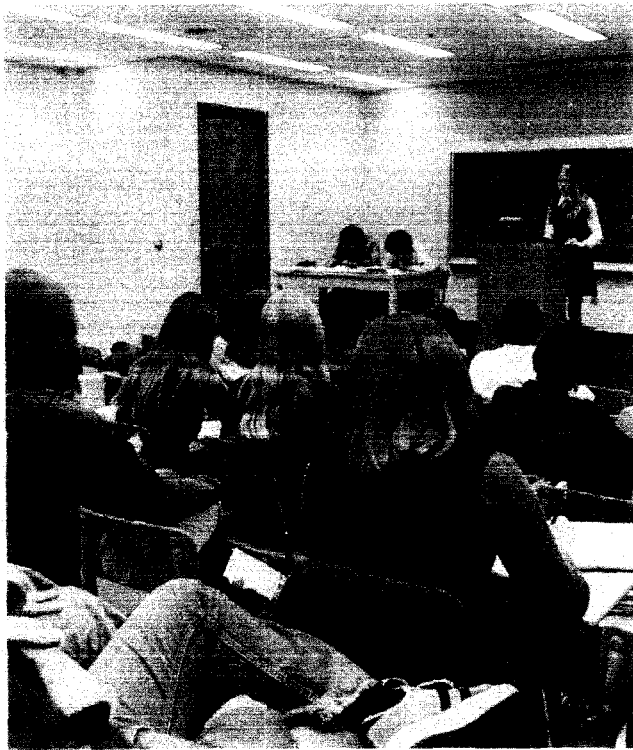
















PHYSICS

100. INTRODUCTION TO PHYSICS (4). Designed primarily for the non-science student; major principles and concepts of physics with emphasis on the scientific approach to problems. This course cannot be used as part of a major or minor.
110. COLLEGE PHYSICS I (3). Units, significant figures, use of slide rules, dimensional analysis, application of vectors and vector principles to forces and fields, work-energy-power, and conservation laws. Prerequisite: working knowledge of trigonometry. This course is a prerequisite for Physics 211 — College Physics II.

PHYSICAL SCIENCE *Phys & Earth Science*

101. INTRODUCTION TO PHYSICAL AND EARTH SCIENCES I (5). Scientific method, measurement and presentation of data, motion, electricity and magnetism, atoms and molecules, fundamental chemical problems. Emphasis on application to industry and environment. Four hours of lecture-recitation and three hours of laboratory.
102. INTRODUCTION TO PHYSICAL AND EARTH SCIENCES II (5). Chemical properties of substances important to the environment, X-rays and radioactivity, light and sound. Emphasis on application to industry and environment. Four hours of lecture-recitation and three hours of laboratory.
103. INTRODUCTION TO PHYSICAL AND EARTH SCIENCES III (5). Weather, rocks, geologic processes, geologic time, air and water pollution, distribution and extraction of natural resources. Four hours of lecture-recitation and three hours of laboratory or field trips.

POLITICAL SCIENCE

101. INTRODUCTION TO POLITICS (4). Study of fundamental concepts and problems of politics. The enduring questions of politics are examined by analyzing contemporary political problems and by comparing a wide variety of modern political institutions in many different cultures. Restricted to freshmen and sophomores. Required of majors.
201. AMERICAN GOVERNMENT: PROCESSES AND STRUCTURE (4). Introductory study of constitutional basis and development, political processes (parties, nominations and elections, interest groups, public opinion), and organization of the American governmental system.
202. AMERICAN GOVERNMENT: FUNCTIONS AND POLICIES (4). An examination of centers of policy making and legislation, programs, and issues in selected areas of public policy, such as economic policies, urban problems, education, poverty, environmental protection, civil rights, foreign affairs and national defense.

PSYCHOLOGY

201. GENERAL PSYCHOLOGY (5). A broad introductory course which is a prerequisite to all courses in the department. Considerations of the scientific approach to the study of behavior, with applications to personal and social behavior. A student is expected to participate in departmental research. Open to a freshman psychology major.

- E352. INDUSTRIAL PSYCHOLOGY I (3). Psychology of performance at work. Emphasis on analysis and evaluation of human work. Prerequisite: Psychology 201.

QUANTITATIVE ANALYSIS AND CONTROL

ACCOUNTING

221. PRINCIPLES OF ACCOUNTING (4). The accounting methodology for accumulation of business data and reporting of financial activities with emphasis on the accounting system as a control over data validity and business operations. Prerequisite: completion of Mathematics 125 or 231, or preferably, concurrent registration in Mathematics 125 or 231, or consent of instructor.
222. PRINCIPLES OF ACCOUNTING (4). The continuation of Accounting 221 with emphasis on special problems of accounting valuation. Interpretation and use of accounting reports in making business decisions. Prerequisite: Accounting 221.

STATISTICS

111. ELEMENTARY STATISTICAL METHODS I (4). Analysis of basic data, frequency distributions, index numbers, time series, probability, and probability distributions. Prerequisite: completion of Mathematics 125 or 231, or preferably, concurrent registration in Mathematics 125 or 231, or consent of instructor.
212. ELEMENTARY STATISTICAL METHODS II (4). Sampling distributions, estimation, hypothesis testing, regression and correlation, sampling theory, non-parametric statistics, and analysis of variance. Prerequisite: Statistics 111; a non-business student with consent of instructor.

GENERAL COURSES IN QUANTITATIVE ANALYSIS AND CONTROL

160. INTRODUCTION TO DATA PROCESSING (3). An introductory course in data processing principles, including logical analysis, computer programming, the nature of the computer, and the nature of the computer environment in business. Prerequisite: completion of college mathematics requirement 125 or 231 or preferably, concurrent registration in Mathematics 125 or 231, or consent of instructor.

ROMANCE LANGUAGES

Generally, one year of high school study of a language is equivalent to one quarter of college study. Credit toward graduation is not allowed for 101, 102, 103, 201, 202 when the equivalent credit has been accepted from high school as part of the admission credits except that a student is allowed to duplicate one unit of high school study with University credit.

FRENCH

101. ELEMENTARY FRENCH (4). Beginning oral-aural study of the language, with attention to grammar. Four class periods and scheduled oral practice each week.

102. ELEMENTARY FRENCH (4). French 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: French 101 or one year of French in high school or equivalent.

103. ELEMENTARY FRENCH (4). French 102 continued. Four class periods and scheduled oral practice each week. Prerequisite: French 102, or one and one-half years of French in high school, or placement.

201. INTERMEDIATE FRENCH (4). Four class periods and laboratory. Prerequisite: French 103 or two years of French in high school or equivalent.

202. INTERMEDIATE FRENCH (4). French 201 continued. Four class periods and scheduled oral practice each week. Prerequisite: French 201 or three years of French in high school or equivalent.

SPANISH

101. ELEMENTARY SPANISH (4). Beginning oral-aural study of the language with attention to grammar. Four class periods and scheduled oral practice each week.

102. ELEMENTARY SPANISH (4). Spanish 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: Spanish 101 or one year of Spanish in high school or equivalent.

103. ELEMENTARY SPANISH (4). Spanish 102 continued. Four class periods and scheduled oral practice each week. Prerequisite: Spanish 102, one and one-half years of Spanish in high school or placement.

201. INTERMEDIATE SPANISH (4). Four class periods and laboratory. Prerequisite: Spanish 103 or two years of Spanish in high school or equivalent.

202. INTERMEDIATE SPANISH (4). Spanish 201 continued. Four class periods and scheduled oral practice each week. Prerequisite: Spanish 201 or three years of Spanish in high school or equivalent.

SOCIOLOGY

101. PRINCIPLES OF SOCIOLOGY (3). Elements and concepts of social organization, social change, and group relationships.

202. SOCIAL PROBLEMS (3). Sociological analysis of contemporary social problems. Prerequisite: Sociology 101.

231. CULTURAL ANTHROPOLOGY (3). Basic concepts and objectives in the study of culture. A survey of the range of cultural phenomena and approaches to their study. Prerequisite: Sociology 101.

SPEECH

102. PRINCIPLES OF SPEECH (4). Basic principles of oral communication and the field of speech, with attention to individual needs.

103. ARGUMENTATION (4). Basic principles of argumentation with emphasis on analysis, evidence, reasoning, refutation. Attention to the application of these principles to various forms of public address.

110. INTERCOLLEGIATE FORENSIC ACTIVITIES

(1). For a student who wishes to compete in inter-collegiate debate, discussion, oratory, extemporaneous speaking, and other individual events. May be repeated to four hours.

141. INTRODUCTION TO DRAMATIC ART (4). Theatre as an art form, presented from the historical, literary, and production points of view.

146. DRAMATIC PRODUCTION (1 or 2). A laboratory course for the student who acts in or stages a play.

201. ARTS AND SCIENCES OF SPEECH (3). Designed to provide an understanding and insight into the field of speech as a whole. Attention is directed toward basic issues faced by each of the areas of speech and their interrelationships. Prerequisite: Speech 102.

202. ORAL INTERPRETATION (4). Logical and emotional meaning in prose, poetry, and drama for oral reading; selection of materials for programs; techniques of expression.

203. PRINCIPLES OF DISCUSSION (4). Principles and methods of group discussion.

223. SPEECH AND HEARING PROBLEMS (4). Language and speech development and various types of speech and hearing abnormalities.

241. PRINCIPLES OF ACTING (3). Basic acting techniques with emphasis on stage movement and voice; principles and theories of sensory, imaginative, emotional, pantomimic responsiveness. Laboratory hours to be arranged.

TYPICAL SCHEDULES — BACCALAUREATE PROGRAMS

The yearly schedules outlined below are meant to serve as general guidelines for new students. Most of the University's four-year programs would follow one of the five patterns listed below. By following this outline, students would fulfill the general studies requirements of each college program.

All students are encouraged to refer to the regular University *Bulletin* for complete curricula requirements and for designation of courses of study which do not follow these outlines. University *Bulletins* are available to prospective students who address requests to the Office of Admissions, Bowling Green State University, Bowling Green, Ohio 43403.

TYPICAL ELEMENTARY EDUCATION SCHEDULE

First Year: Art 101 (3); Biology 101 or 104 (5); English 111/112 (4-8); Geography 121, 122 (6); physical science — geology, chemistry, physics (4); HPE 100 (3); HPE 109, 110 (5); History 151, 152, or 153 (4); Speech 102 (4); electives or minor (4-8). Total: 47 hours.

Second Year: History 205, 206 (8); English literature (4); Mathematics 241, 242 (9); physical science — geology, chemistry, physics (4); Psychology 201 (5); social science (4); electives or minor (12-15). Total: 45 hours.

TYPICAL SECONDARY EDUCATION SCHEDULE

First Year: English 111/112 (4-8); HPE 100 (3); science or mathematics (8-10); social science (8-10); Speech 102 (4); fine or applied arts (3-6); major and/or minor (12-18); electives (0-8). Total: 45-48 hours.

Second Year: English literature (4); Psychology 201 (5); science or mathematics (4-10); social science (0-8); fine or applied arts (3-6); major and/or minor (12-24); electives (0-8). Total: 45-46 hours.

TYPICAL ARTS AND SCIENCES SCHEDULE (SCIENCE EMPHASIS)

First Year: English 111/112 (4-8); HPE 100 (3); Speech 102 (4); mathematics (proficiency equivalent to 130) (5-10); science (9-12); foreign language (proficiency equivalent to 202) (4-12); social science (4-8); fine arts (4-8). Total: 45-48 hours.

Second Year: English literature (4); foreign language (0-8); science (15-20); social science (8-12); fine arts (4-8); electives (8-12). Total: 45-46 hours.

TYPICAL ARTS AND SCIENCES SCHEDULE (NON-SCIENCE EMPHASIS)

First Year: English 111/112 (4-8); HPE 100 (3); Speech 102 (4); Mathematics 122, 124, 130 (5); science (5-10); foreign language (proficiency equivalent to 202) (4-12); social science (8-12); fine arts (8-12); electives (4-12). Total: 45-48 hours.

Second Year: English literature (4); science (5-10); foreign language (0-8); social science (12-15); fine arts (8-12); electives (12-15). Total: 45-46 hours.

TYPICAL BUSINESS ADMINISTRATION SCHEDULE

First Year: English 111/112 (4-8); HPE 100 (3); Speech 102 (4); Statistics 111 (4); science (3-4-5); Mathematics 124 and 125, or 131 and 231 (10); social science (3-6); humanities (3-6); non-business electives (6-8); free electives. Total: 45-48 hours.

Second Year: Accounting 221, 222 (8); Economics 201, 202 (8); Statistics 212 (4); science (4-5); social science (3-6); humanities (3-6); non-business electives; free electives. Total: 45-46 hours.



ASSOCIATE DEGREE PROGRAMS

In September, 1969, Firelands Campus initiated its first associate degree program in executive secretarial and office administration. The first graduates completed their work in June, 1971 and were awarded the Associate in Applied Business degree.

The completion of the new Phase II building in August, 1972 will allow greatly expanded offerings in associate degree education. Students of the Firelands area may select from programs in business technology, engineering technology, or public service technology as outlined on the following pages. Planning for additional programs has already begun for subsequent years, and will be announced as each is completed.

COMPUTER SCIENCE TECHNOLOGY

The two-year associate degree program in computer science is designed to prepare the graduate for a position as programmer/analyst in business, industry, education, government or public service. The program will provide a solid foundation in basic mathematics, accounting principles and communication skills, both oral and written. The major characteristic of the program is the development of proficiency in computer programming and systems analysis.

The program begins with the presentation of the principles of computer logic and decision-making and progresses into computer languages.

The computer technology courses are supported by data processing laboratories where the student will apply the techniques learned in the classroom. The program will culminate with the assignment of a field project that will enable the student to apply his data processing skills to a practical problem in business, industry, or some other appropriate situation.

The curriculum is designed to decrease emphasis on functional writing and unit record equipment courses and emphasize electronic data processing.

COMPUTER SCIENCE TECHNOLOGY CURRICULUM

First Year

FALL

CS 101	Introduction to Computing I	4
AMS 110	Developmental Mathematics	3
Eng. 111	Introductory Writing: Technical Emphasis	4
Spch. 102	Principles of Speech	4
		15

WINTER

CS 102	Introduction to Computing II	4
AMS 121	Applied Mathematics	5
Psych. 201	General Psychology	5
Soc. 101	Principles of Sociology	3
		17

SPRING

CST 131	Electronic Data Processing Laboratory I	4
CST 260	Techniques of Cobol Programming	4
Acct. 221	Principles of Accounting	4
Eng. 112	Varieties of Writing: Technical Writing	4
		16

Second Year

FALL

CS	201	Computers and Programming I	4
CST	212	Electronic Data Processing Laboratory II	2
Acct.	222	Principles of Accounting	4
QAC	111	Elementary Statistical Methods I	4
Mgmt.	305	Principles of Organization and Management	4
			18

WINTER

CS	203	Logical Foundations of Computing	4
CST	221	Systems and Procedures I	3
QAC	212	Elementary Statistical Methods II	4
Econ.	200	Introduction to Economics	4
Psych.	352	Industrial Psychology	3
			18

SPRING

CST	231	Electronic Data Processing Seminar	4
CST	232	Systems and Procedures II	3
CST	233	Electronic Data Processing Laboratory III	6
Mgmt.	300	Production and Operations Management	4
			17
		TOTAL	101

EXECUTIVE SECRETARIAL AND OFFICE ADMINISTRATION*

The two-year executive secretarial and office administration curriculum is designed to prepare students for secretarial and administrative assistant positions in business and industrial establishments, professional offices, and government agencies.

This two-year program is specifically designed for those students who do not wish to enroll in a four-year curriculum. This program will give students specific office skills necessary to attain the positions for which they are aspiring. The associate degree in applied business is granted upon completion of the two-year program.

If a student should decide to continue his education after completion of one or two years of this program, he receives full credit in all courses satisfactorily completed. Some modification may be made in this suggested program, depending on the educational background and experience of the student.

All courses listed below that do not have a prerequisite may be moved to another quarter in the student's program to facilitate student scheduling.

EXECUTIVE SECRETARIAL AND OFFICE ADMINISTRATION CURRICULUM

First Year

FALL

Bus. E.	101	Business Mathematics	4
Bus. E.	111**	Beginning Typewriting	3
Bus. E.	213**	Beginning Shorthand	3
Bus. E.	220	Data Processing I	3
HPE	100	General Physical Education	1
			14

*A candidate for the degree in Applied Business must complete at least 45 hours in residence immediately preceding graduation, earn a point average of at least 2.0 in coursework taken in residence, meet the requirements as listed above, and earn a minimum of 93 hours of credit including 3 hours of health and physical education.

<i>WINTER</i>		
Bus. E. 112**	Intermediate Typewriting	3
Bus. E. 214**	Intermediate Shorthand	3
Bus. E. 240	Business Problems of Consumer	4
Eng. 111	Introductory Writing	4
HPE 100	General Physical Education	1
		15

<i>SPRING</i>		
Bus. E. 210	Advanced Typewriting	3
Bus. E. 211	Office Reproduction	3
Bus. E. 215**	Advanced Shorthand	3
Eng. 112	Varieties of Writing	4
HPE 100	General Physical Education	1
Electives		3
		17

Second Year

<i>FALL</i>		
Acct. 221	Principles of Accounting	4
Bus. A. 102	Introduction to Business	4
Bus. E. 311	Dictation and Transcription	3
Bus. L. 301	Business Law	4
		15

<i>WINTER</i>		
Acct. 222	Principles of Accounting	4
Bus. A. 303	Business Communications	4
Bus. E. 312	Advanced Dictation and Transcription	3
Bus. E. 321	Data Processing II	3
		14

<i>SPRING</i>		
Bus. E. 230	Records Management	4
Bus. E. 314	Internship	1-3
Bus. E. 401	Secretarial Administration	5
Econ. 201	Principles of Economics	4
Electives		3
		17

TOTAL 93

ENVIRONMENTAL TECHNOLOGY

The objective of the curriculum in environmental technology is to train technicians capable of assisting sanitation engineers, water and sewage treatment plant operators, pollution law enforcement personnel, industrial quality control engineers and others directly associated with water pollution, detection and abatement.

The course content of the program is designed to improve communications skills, identify current pollution problems and develop the technical expertise necessary for performance of pollution detection and control functions. It is assumed that knowledge and skills learned on the job will further develop specific abilities, which will result in growth and advancement.

**A student graduating from high school in business education who has had the beginning level courses in typewriting and/or shorthand should enroll in the advanced level courses. The student with two semesters of high school typewriting and/or shorthand should enroll in Business Education 112 and/or 214. The student with four semesters of high school typewriting and/or shorthand should enroll in Business Education 210 and/or 215. A student who chooses to enroll in lower-level courses does not receive credit toward his two-year program for such courses. A student not taking the beginning-level courses in typewriting and/or shorthand must substitute electives in place of the beginning courses to complete a minimum of 93 hours for graduation.

Employment opportunities exist with local, state and federal health, pollution control and/or enforcement agencies. The possibility of employment by private industrial concerns as a pollution abatement technician or in quality control also exists. Further opportunities lie in both public and private research and development activities, including design and refinement of pollution equipment and control processes. Finally, the graduate may elect to become a sales and/or service representative for firms which sell analysis and control equipment and supplies.

Environmental Technology Curriculum

First Year

FALL

ET	141	Contemporary Problems in Biology	4
Eng.	111	Introductory Writing: Technical Emphasis	4
Spch.	102	Principles of Speech	4
P.S.	101	Introduction to Politics	4
			16

WINTER

ET	142	General Biology	4
Phys.Sc.	101	Introduction to Physical and Earth Sciences I	5
AMS	121	Applied Mathematics	5
HPE	109	Personal Health	3
			17

SPRING

ET	110	Microbiology for Water and Food	5
ET	121	Environmental Seminar	2
Phys.Sc.	102	Introduction to Physical and Earth Sciences II	5
Eng.	112	Varieties of Writing: Technical Writing	4
			16

Second Year

FALL

ET	214	Sanitary Chemistry for Water	5
ET	243	Environmental Biology	3
Phys.Sc.	103	Introduction to Physical and Earth Sciences III	5
IET	224	Graphics	3
			16

WINTER

ET	210	Biological Effects of Air Pollution and Basis for Quality Standards	3
ET	220	Water Supply and Waste Water Control	5
Biol.	321	Economic Biology	4
Geog.	244	Elements of Physical Geography and Surveying	5
			17

SPRING

ET	221	Environmental Seminar	2
ET	260	Methods of Control of Industrial Air Pollutants	5
Biol.	322	Economic Biology	4
Econ.	200	Introduction to Economics	4
Soc.	101	Principles of Sociology	3
			18

TOTAL 100

ELECTRONICS TECHNOLOGY

The continuing rapid growth of industrial and consumer electrical and electronic devices has resulted in an increased demand for personnel with a solid understanding of the principles and applications of electrical and electronic devices.

The associate degree program in electronics technology provides the student with a solid background in basic mathematics and science upon which he will build his technical competencies. The technical courses include fundamentals of electricity and electronics, communications, electrical instrumentation and measurements, industrial control systems, microwaves, and computer logic and circuitry.

Graduates of this program will be able to function in many industries as well as in component areas within a specific industry. These areas include communications, manufacturing, process control, installation and maintenance, research and development, industrial instrumentation, computer applications, and production and distribution of electrical power. Typical occupational titles would be electrical designer, research and development technician, sales representative, automation technician, engineering aide, customer service representative, field engineering technician and electronics instrumentation technician.

Electronics Technology Curriculum

First Year

FALL

IET	104	Design & Engineering Graphics I	4
AMS	111	Mathematics-Physics I	6
Spch.	102	Principles of Speech	4
Soc.	101	Principles of Sociology	3
			17

WINTER

IET	113	Materials Processing I	4
IET	204	Design & Engineering Graphics II	5
AMS	122	Mathematics-Physics II	6
Eng.	111	Introductory Writing: Technical Emphasis	4
			19

SPRING

IET	191	Energy, Power, Instrumentation and Control — Automation	4
IET	347	Electricity	5
AMS	133	Mathematics-Physics III	6
Eng.	112	Varieties of Writing: Technical Writing	4
			19

Second Year

FALL

IET	114	Materials Processing II	4
IET	244	Communication Circuits	3
IET	348	Electronics	5
CS	101	Introduction to Computing I	4
			16

WINTER

IET	245	Communication Systems	3
IET	246	Electrical Amplifiers	5
IET	247	Electrical Measurements and Instrumentation	5
Econ.	200	Introduction to Economics	4
			17

SPRING

IET	218	Management and Supervision	3
IET	248	Industrial Equipment and Controls	5
IET	249	Special Electronic Design Problems	4
Psych.	201	General Psychology	5
			17

TOTAL 105

ELECTRO-MECHANICAL TECHNOLOGY

This program of study includes subjects from both electronics and mechanical fields and auxiliary or supporting courses in applied sciences, machines and machine processes, mathematics, technical report writing, mechanical measurements, communications and industrial management and supervision. Emphasis is placed on the practical application of electro-mechanical devices. Instruction is planned to provide preparation concerned with the design, development, and testing of electro-mechanical devices and systems such as automatic control systems and servo-mechanisms.

Graduates from this area of study will find employment as technicians in a variety of manufacturing, service and research organizations and government agencies. Some may be employed as laboratory technicians in support of scientific research and others may become engineering aides in the electro-mechanical field.

Electro-Mechanical Technology Curriculum

First Year

FALL

IET	104	Design & Engineering Graphics I	4
AMS	111	Mathematics-Physics I	6
Spch.	102	Principles of Speech	4
Soc.	101	Principles of Sociology	3
			17

WINTER

IET	113	Materials Processing I	4
IET	204	Design & Engineering Graphics II	5
AMS	122	Mathematics-Physics II	6
Eng.	111	Introductory Writing: Technical Emphasis	4
			19

SPRING

IET	191	Energy, Power, Instrumentation and Control — Automation	4
IET	347	Electricity	5
AMS	133	Mathematics-Physics III	6
Eng.	112	Varieties of Writing: Technical Writing	4
			19

Second Year

FALL

IET	114	Materials Processing II	4
IET	242	Mechanics (Statics)	4
IET	348	Electronics	5
CS	101	Introduction to Computing I	4
			17

WINTER

IET	211	Manufacturing Processes I — Forming	4
IET	216	Metrology	4
IET	247	Electrical Measurements and Instrumentation	5
IET	243	Strength of Materials	4
			17

SPRING

IET	218	Management and Supervision	3
IET	248	Industrial Equipment and Controls	5
Econ.	200	Introduction to Economics	4
Psych.	201	General Psychology	5
			17

TOTAL 106

MANUFACTURING TECHNOLOGY

The post-war industrial explosion has tended to create a void between the engineer and skilled labor within industry. Literally, industry requires an army of personnel who can translate engineering designs into tooling and products with

maximum efficiency and minimum cost. The manufacturing technician represents a significant part of that army.

His educational experiences include traditional and non-traditional manufacturing processes, metrology, metallurgy and applications of the computer within the manufacturing industries. Skilled in materials, production planning and control and with a solid foundation in mathematics, science, communications and human relations, the manufacturing technology graduate is a vital addition to industry.

Manufacturing technology graduates will be prepared to function in many industrial areas including: planning and coordinating projects; development of manufacturing methods and processes; design of tools and equipment; and selection of new tools and equipment.

Typical titles assigned to the graduate will be: manufacturing planner, production foreman, manufacturing development technician, quality control technician, research and development technician, tool design analyst, sales representative or tool room supervisor.

Manufacturing Technology Curriculum

First Year

FALL

IET	104	Design & Engineering Graphics I	4
AMS	111	Mathematics-Physics I	6
Eng.	111	Introductory Writing: Technical Emphasis	4
Soc.	101	Principles of Sociology	3
			17

WINTER

IET	113	Materials Processing I	4
IET	204	Design & Engineering Graphics II	5
AMS	122	Mathematics-Physics II	6
Spch.	102	Principles of Speech	4
			19

SPRING

IET	114	Materials Processing II	4
AMS	133	Mathematics-Physics III	6
CS	101	Introduction to Computing I	4
Eng.	112	Varieties of Writing: Technical Writing	4
			18

Second Year

FALL

IET	191	Energy, Power, Instrumentation and Control — Automation	4
IET	214	Manufacturing Processes	4
IET	241	Electricity and Electronics	3
IET	242	Mechanics (Statics)	4
Econ.	200	Introduction to Economics	4
			19

WINTER

IET	211	Manufacturing Processes — Forming	4
IET	212	Manufacturing Processes II — Combining	4
IET	215	Metallurgy	4
IET	216	Metrology	4
			16

SPRING

IET	213	Manufacturing Processes III — Non-traditional	4
IET	217	Production Planning and Control	4
IET	218	Management and Supervision	3
Psych.	201	General Psychology	5
			16

TOTAL 105

MECHANICAL DESIGN TECHNOLOGY

Because of the nature of the consumer market and the rapid advancement of technology, there exists a great need for industrial and mechanical design personnel within industry. The design of the product which ultimately appears on the market demands but a share of the designer's time in preparation. Equally important is the design of the jigs, fixtures, dies, tools, mechanisms and machines necessary to economically produce the product.

Within the mechanical design technology curriculum, emphasis is placed on drafting only as a tool of communication. The student will receive in-depth experiences in operation, selection, and modification of existing mechanical devices and their applications to new products and machines necessary to produce them.

The student will complete the general core of mathematics, physics, communications, humanities, social sciences and related technical sciences to establish a base for specialization and for future development. Beyond that core, he will take courses in manufacturing processes, mechanisms, mechanical design, design for production and computer graphics.

The two-year program in mechanical design technology will prepare the graduate to enter industry in such positions as design draftsman, developmental laboratory technician, research or engineering assistant or designer.

Mechanical Design Technology Curriculum

First Year

FALL

IET	104	Design & Engineering Graphics I	4
AMS	111	Mathematics-Physics I	6
Spch.	102	Principles of Speech	4
Soc.	101	Principles of Sociology	3
			17

WINTER

IET	113	Materials Processing I	4
IET	204	Design & Engineering Graphics II	5
AMS	122	Mathematics-Physics II	6
Eng.	111	Introductory Writing: Technical Emphasis	4
			19

SPRING

IET	114	Materials Processing II	4
AMS	133	Mathematics-Physics III	6
CS	101	Introduction to Computing I	4
Eng.	112	Varieties of Writing: Technical Writing	4
			18

Second Year

FALL

IET	214	Manufacturing Processes	4
IET	241	Electricity and Electronics	3
IET	242	Mechanics (Statics)	4
IET	304	Mechanical Design	4
			15

WINTER

IET	191	Energy, Power, Instrumentation and Control — Automation	4
IET	202	Mechanical Design II	4
IET	205	Tool and Die Design	4
IET	243	Strength of Materials	4
			16

SPRING

IET	206	Jig and Fixture Design	2
IET	207	Computer Graphics	3
IET	218	Management and Supervision	3
Econ.	200	Introduction to Economics	4
Psych.	201	General Psychology	5
			17
		TOTAL	102

MECHANICAL TECHNOLOGY

In previous program descriptions, it was seen that the mechanical design technology graduate is required to have a minimal understanding of manufacturing in order to efficiently design a product. Similarly, the manufacturing technology graduate would take sufficient courses in engineering graphics to communicate with the designer. The mechanical technology curriculum is designed to even more effectively achieve the liaison between the design and production divisions within industry.

In addition to the foundation provided by the core courses in mathematics, science and general education, the mechanical technology graduate has a background in mechanical design and manufacturing as well as an insight into automation and cybernetics as applied to manufacturing processes. Upon graduation, he will be prepared to enter industry as a production change analyst, manufacturing development technician, manufacturing research assistant, production assistant, production control specialist or quality control technician.

Mechanical Technology Curriculum**First Year***FALL*

IET	104	Design & Engineering Graphics I	4
AMS	111	Mathematics-Physics I	6
CS	101	Introduction to Computing I	4
Eng.	111	Introductory Writing: Technical Emphasis	4
			18

WINTER

IET	113	Materials Processing I	4
IET	204	Design & Engineering Graphics II	5
AMS	122	Mathematics-Physics II	6
Spch.	102	Principles of Speech	4
			19

SPRING

IET	114	Materials Processing II	4
IET	191	Energy, Power, Instrumentation and Control — Automation	4
AMS	133	Mathematics-Physics III	6
Soc.	101	Principles of Sociology	3
			17

Second Year*FALL*

IET	210	Fluid Systems	3
IET	214	Manufacturing Processes	4
IET	242	Mechanics (Statics)	4
IET	304	Mechanical Design	4
Eng.	112	Varieties of Writing: Technical Writing	4
			19

WINTER

IET	211	Manufacturing Processes I — Forming	4
IET	212	Manufacturing Processes II — Combining	4
IET	215	Metallurgy	4
IET	216	Metrology	4
IET	243	Strength of Materials	4
			20

TENTATIVE FIRELANDS CAMPUS COURSES

	COURSE NUMBER	DESCRIPTIVE TITLE	QUARTER HOURS CREDIT	QUARTER		
				FALL	WINTER	SPRING
Applied Mathematics and Science	110	Developmental Mathematics	3	X		
	111	Mathematics-Physics I	6	X		
	121	Applied Mathematics	5		X	
	122	Mathematics-Physics II	6		X	
	133	Mathematics-Physics III	6			X
Art	101	Introduction to Art	3	X	X	X
	102	Art Fundamentals	5	X		
	103	Drawing	3		X	
	104	Drawing	3			X
	112	Beginning Design	3		X	
	145	History of Western Art I	3	X		
	146	History of Western Art II	3		X	
	211	Intermediate Design	3	X		
	212	Intermediate Design	3		X	
	213	Intermediate Design	3			X
	245	History of Western Art III	3			X
Arts and Sciences	100	Seminar in Arts & Sciences: Principles of Play Production	3		X	
Biology	101	General Biology: Man & His Environment	5	X	X	X
	104	General Biology	5	X	X	X
	106	General Botany and Microbiology	3	X		X
	107	General Zoology	3	X	X	
	208	Basic Physiology	5		X	
	213	Environmental Biology	5			X
	*E321	Economic Biology I	4			
	*E322	Economic Biology II	4			
Business Administration	102	Introduction to Business	4	X	X	X
	E303	Business Communication	4		X	
Business Education	101	Business Mathematics	4	X	X	
	111	Beginning Typewriting	3	X		
	112	Intermediate Typewriting	3		X	
	210	Advanced Typewriting	3			X
	211	Office Reproduction Processes	3			X
	213	Beginning Shorthand Theory	3	X		
	214	Intermediate Shorthand Theory	3		X	
	215	Advanced Shorthand Theory	3			X
	220	Data Processing I	3	X	X	
	230	Records Management	3		X	X
	240	Business Problems of the Consumer	4	X		X
	E311	Dictation and Transcription	3	X		
	E312	Advanced Dictation and Transcription	3		X	
	E314	Internship in Business Education	1	X	X	X
	E321	Data Processing II	3		X	
	E401	Secretarial Administration	5			X

*Beginning in 1973-74

	COURSE NUMBER	DESCRIPTIVE TITLE	QUARTER HOURS CREDIT	QUARTER		
				FALL	WINTER	SPRING
Business Law	E301	General Business Law	4	X		
Chemistry	100	Introduction to Chemistry	4		X	X
	111	Elementary Chemistry	4	X		
	112	Elementary Chemistry	4		X	
	121	General Chemistry	5	X		
	122	General Chemistry	5		X	
	123	General Chemistry	5			X
	213	Bio-Organic Chemistry for Non-Science Majors	4			X
Computer Science	101	Introduction to Computing I	4	X		X
	102	Introduction to Computing II	4		X	
	*201	Computers and Programming I	4			
	*203	Logical Foundations of Computing	4			
Computer Science Technology	131	Electronic Data Processing Laboratory I	4			X
	*212	Electronic Data Processing Laboratory II	2			
	*221	Systems and Procedures I	3			
	*231	Electronic Data Processing Seminar	4			
	*232	Systems and Procedures II	3			
	*233	Electronics Data Processing Laboratory III	6			
	260	Techniques of Cobol Programming	4			X
Economics	*200	Introduction to Economics	4			
	201	Principles of Economics	4	X		X
	202	Principles of Economics	4		X	
English	111	Introductory Writing	4	X	X	X
	112	Varieties of Writing	4	X	X	X
	161	World Literature	4	X		X
	162	World Literature	4	X	X	
	202	Introduction to Poetry	4	X		X
	203	Introduction to Drama	4		X	X
	204	Introduction to Fiction	4	X	X	X
	208	Creative Writing	4		X	
	260	Introduction to Popular Culture	5			X
Environmental Technology	110	Microbiology for Water and Food	5			X
	121	Environmental Seminar	2			X
	*141	Contemporary Problems in Biology	4			
	*142	General Biology	4			
	*210	Biological Effects of Air Pollution and Basis for Quality Standards	3			
	*214	Sanitary Chemistry for Water	5			
	*220	Water Supply and Waste Water Control	5			
	*221	Environmental Seminar II	2			
	*243	Environmental Biology	3			
	*260	Methods of Control of Industrial Air Pollutants	5			
Experimental Studies	101, 301	Seminar	4			X
Geography	121	World Geography I: Eurasia and Africa	3	X	X	X
	122	World Geography II: Americas & Pacific	3	X	X	X
	125	Weather and Climate	3	X		
	126	Vegetation and Soils	3		X	
	127	Landform Development and Distribution	3			X
	213	Meteorology	5		X	
	225	Economic Geography	5	X		X
	230	Cultural Geography	5		X	
	*244	Elements of Physical Geography & Surveying	5			

*Beginning in 1973-74

	COURSE NUMBER	DESCRIPTIVE TITLE	QUARTER HOURS CREDIT	QUARTER		
				FALL	WINTER	SPRING
Geology	100	Introduction to Geology	4	X	X	X
	103	Geologic Materials	4	X		
	104	Geological Processes	4		X	
	105	Principles of Historical Geology	4			X
	210	Introduction to Astronomy	4		X	X
Health and Physical Education	100	General Physical Education	1	X	X	X
	109	Personal Health	3	X	X	X
	110	Community Health	2	X	X	X
	261, 266	Adv. Sports Skills & Coach Tech.	3	X	X	
History	151	World Civilization: to 1300	4	X		X
	152	World Civilization: 1300 to 1815	4	X	X	X
	153	World Civilization: 1815 to Present	4	X	X	X
	205	The United States to 1865	4	X	X	X
	206	The United States Since 1865	4	X	X	X
	280	Asian Civilization	4		X	X
Home Economics	101	Clothing	3	X		
	102	Clothing	3		X	
	103	Textiles	4			X
	105	Personal & Family Relationships	4	X		X
	205	Home Management	4		X	
	206	Household Equipment	4		X	
Industrial Education and Technology	210	Food Preparation	3			X
	104	Design & Engineering Graphics I	4	X		
	113	Materials Processing I	4		X	
	114	Materials Processing II	4			X
	*121	Industrial Mathematics	5			
	152	Foundations of Industrial Educ. & Tech.	2	X		
	191	Energy, Power, Instrumentation, & Control	4			X
	*202	Mechanical Design II	4			
	204	Design and Engineering Graphics II	5		X	
	*205	Tool and Die Design	4			
	*206	Jig and Fixture Design	2			
	*207	Computer Graphics	3			
	208	Graphic Communications	4			X
	*210	Fluid Systems	3			
	*211	Manufacturing Processes I — Forming	4			
	*212	Manufacturing Processes II — Combining	4			
	*213	Non-Traditional Manufacturing Processes III	4			
	214	Manufacturing Processes	4			X
	*215	Metallurgy	4			
	*216	Metrology	4			
	*217	Production Planning and Control	4			
	*218	Management and Supervision	3			
	*224	Graphics	3			
	235	Construction Technology	4			X
	*241	Electricity and Electronics	3			
	*242	Mechanics (Statics)	4			
	243	Strength of Materials	4			X
	*244	Communication Circuits	3			
	*245	Communications Systems	3			
*246	Electronic Amplifiers	5				
*247	Electrical Measurements & Instrumentation	5				
*248	Industrial Equipment and Controls	5				
*249	Special Electronic Design Problems	4				
291	Energy, Power, Instrumentation and Control	4		X		

*Beginning in 1973-74

	COURSE NUMBER	DESCRIPTIVE TITLE	QUARTER HOURS CREDIT	QUARTER		
				FALL	WINTER	SPRING
	304	Mechanical Design	4			X
	347	Electricity	5			X
	*348	Electronics	5			
Journalism	103	Introduction to Mass Communications	4	X		X
	204	Introduction to News Writing	3		X	
Library Science	203	Introduction to Librarianship	4			X
Management	*E300	Production and Operations Management	4			
	*E305	Principles of Organization & Management	4			
Mathematics	121	Topics in Modern Mathematics	5	X		X
	122	Topics in Modern Mathematics	4			X
	124	Elementary Analysis I	5	X	X	
	125	Elementary Analysis II	5		X	X
	130	Precalculus Mathematics	5	X	X	
	131	Analytic Geometry and Calculus	5	X		X
	241	Elementary Mathematics	5	X	X	
	242	Elementary Mathematics	4		X	
Music	238	Firelands Concert Band	1	X	X	X
	279	University Chorus	1	X	X	X
Philosophy	100	Experiments in Philosophy	4			X
	101	Introduction to Philosophy	4	X	X	X
	202	Ethics	4		X	
	204	Aesthetics	4		X	
	205	Introduction to Logic	4			X
Physics	100	Introduction to Physics	4	X		X
	110	Introduction to Vector Physics	3			X
Physical Science	101	Introduction to Physical & Earth Science I	5		X	
	102	Introduction to Physical & Earth Science II	5			X
	*103	Introduction to Physical & Earth Science III	5			
Political Science	101	Introduction to Politics	4	X	X	X
	201	American Government: Processes & Structure	4	X	X	X
	202	American Government: Functions & Policies	4		X	X
Psychology	201	General Psychology	5	X	X	X
	*E352	Industrial Psychology I	3			
Quantitative Analysis and Control						
Accounting	221	Principles of Accounting	4	X		X
	222	Principles of Accounting	4		X	
Statistics	111	Elementary Statistical Methods I	4		X	X
	212	Elementary Statistical Methods II	4			X
	160	Introduction to Data Processing	3			X
Romance Languages						
French	101	Elementary French	4	X		
	102	Elementary French	4		X	
	103	Elementary French	4			X
	201	Intermediate French	4	X		
	202	Intermediate French	4		X	
Spanish	101	Elementary Spanish	4	X		
	102	Elementary Spanish	4		X	
	103	Elementary Spanish	4			X
	201	Intermediate Spanish	4	X		
	202	Intermediate Spanish	4		X	

*Beginning in 1973-74

	COURSE NUMBER	DESCRIPTIVE TITLE	QUARTER HOURS CREDIT	QUARTER		
				FALL	WINTER	SPRING
Sociology	101	Principles of Sociology	4	X	X	X
	202	Social Problems	4		X	X
	231	Cultural Anthropology	4			X
Speech	102	Principles of Speech	4	X	X	X
	103	Argumentation	4	X		X
	110	Intercollegiate Forensic Activities	1	X	X	X
	141	Introduction to Dramatic Art	4	X		
	146	Dramatic Production	1-2	X		X
	201	Arts and Sciences of Speech	3		X	
	202	Oral Interpretation	4		X	
	203	Principles of Discussion	4	X		X
	223	Speech and Hearing Problems	4	X		X
	241	Principles of Acting	3			X

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Firelands Calendar

FALL QUARTER, 1972

September 27, Wednesday
November 22, Wednesday
November 27, Monday
December 11, Monday
December 14, Thursday
December 15, Friday

Classes begin 8 a.m.
Beginning of Thanksgiving recess 8 a.m.
Resumption of classes 8 a.m.
Fall quarter examinations begin
Fall quarter examinations end
Fall Commencement

WINTER QUARTER, 1973

January 3, Wednesday
March 13, Tuesday
March 16, Friday
March 17, Saturday

Classes begin 8 a.m.
Winter quarter examinations begin
Winter quarter examinations end
Winter Commencement

SPRING QUARTER, 1973

March 26, Monday
May 28, Monday
June 4, Monday
June 7, Thursday
June 9, Saturday

Classes begin 8 a.m.
Memorial Day: classes begin 5 p.m.
Spring quarter examinations begin
Spring quarter examinations end
Spring Commencement

Class schedules and registration instructions for each quarter may be obtained at the Student Services Office at Firelands or by calling (419) 433-5560.

