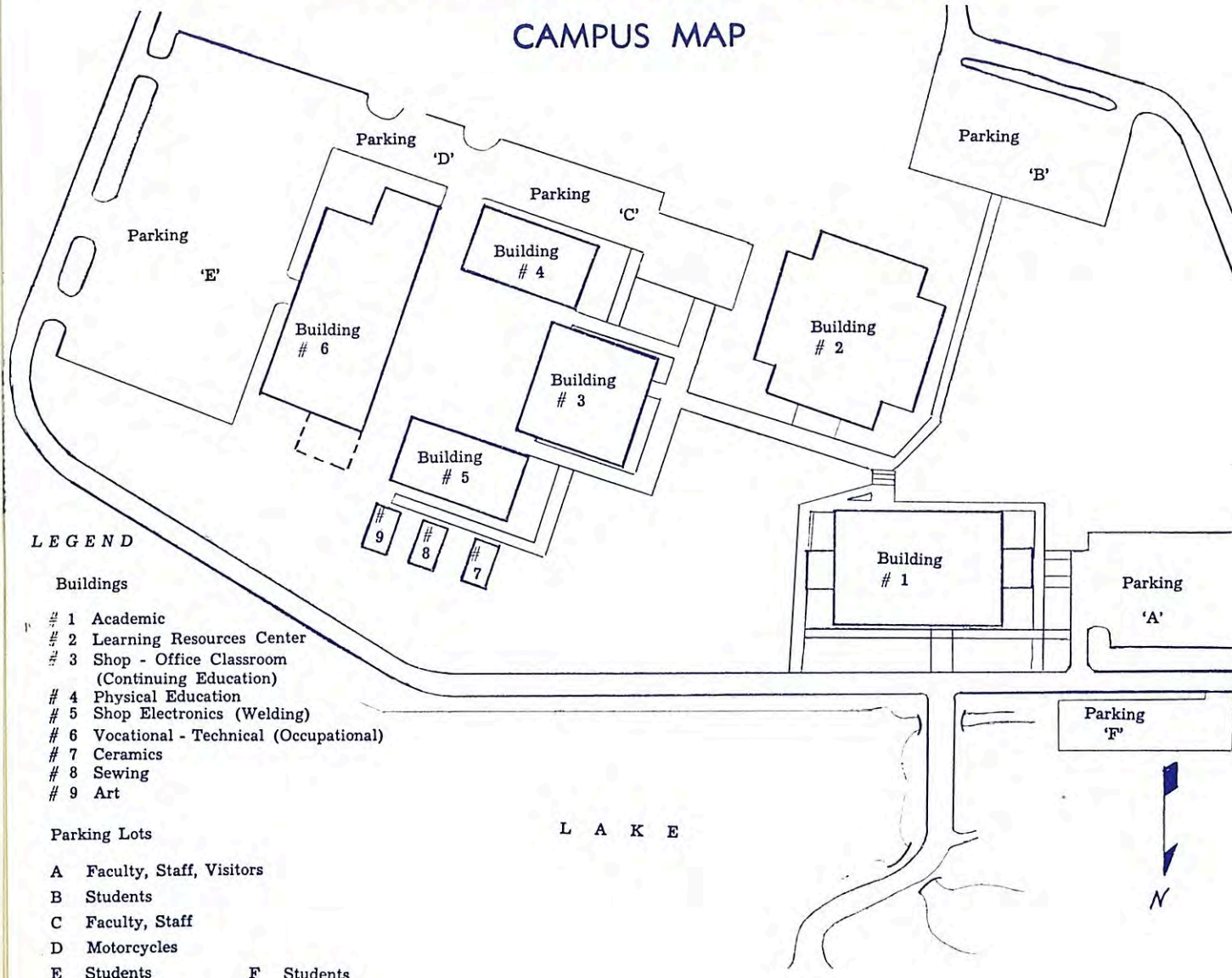




1975-76

ISOTHERMAL COMMUNITY COLLEGE

CAMPUS MAP



LEGEND

Buildings

- # 1 Academic
- # 2 Learning Resources Center
- # 3 Shop - Office Classroom
(Continuing Education)
- # 4 Physical Education
- # 5 Shop Electronics (Welding)
- # 6 Vocational - Technical (Occupational)
- # 7 Ceramics
- # 8 Sewing
- # 9 Art

Parking Lots

- A Faculty, Staff, Visitors
- B Students
- C Faculty, Staff
- D Motorcycles
- E Students
- F Students

L A K E



Isothermal Community College

GENERAL CATALOG 1975-76



Spindale, North Carolina 28160

VOLUME VII

JULY, 1975

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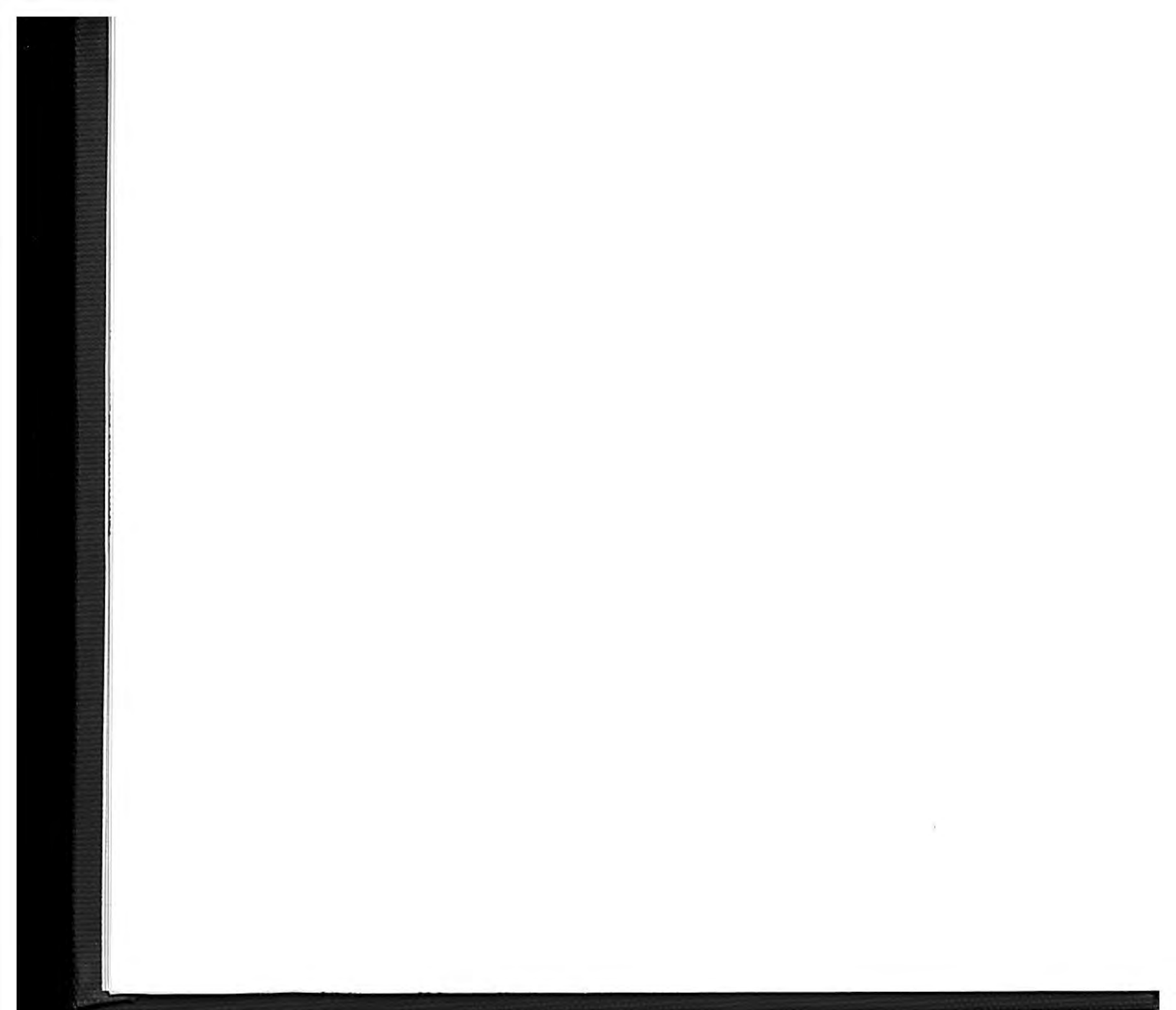
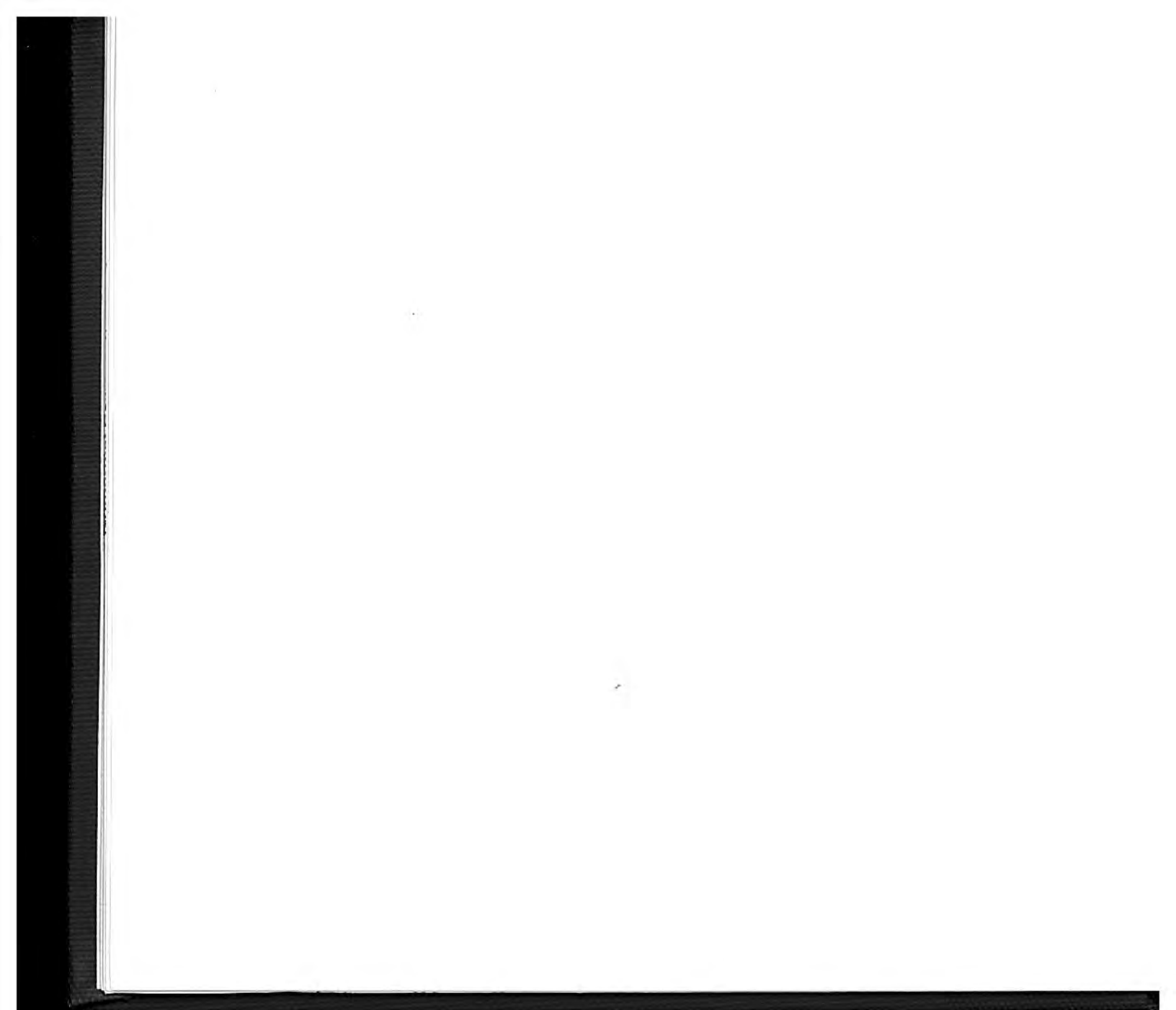


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Academic Calendar 1975-76

FALL QUARTER, 1975

Sept. 4-5	Orientation
Sept. 8-9	Registration
Sept. 10	First Day of Classes
Sept. 16	Last Day to Register, Add, or Drop
Oct. 13-17	Mid-Term Week
Nov. 18	Last Day of Classes
Nov. 19, 20, 21	Final Exams
Nov. 22-30	Thanksgiving Holidays

WINTER QUARTER, 1975-76

Dec. 1, 2	Registration
Dec. 3	First Day of Classes
Dec. 9	Last Day to Register, Add, or Drop
Dec. 20 - Jan. 4	Christmas Holidays
Jan. 19-23	Mid-Term Week
Feb. 24	Last Day of Classes
Feb. 25, 26, 27	Final Exams

SPRING QUARTER, 1976

March 3, 4	Registration
March 5	First Day of Classes
March 11	Last Day to Register, Add, or Drop
April 5-9	Mid-Term Week
April 16-25	Spring Vacation
May 21	Last Day of Classes
May 24, 25, 26	Final Exams
May 28	Graduation

Academic Calendar 1975-76

SUMMER SCHOOL, 1976

1st SESSION

June	1	Registration
June	2	First Day of Classes
June	4	Last Day to Register, Add, or Drop
July	2	Last Day of Classes & Finals
July	5	Holiday

2nd SESSION

July	6	Registration
July	7	First Day of classes
July	9	Last Day to Register, Add, or Drop
Aug.	9	Last Day of Classes & Finals
Aug.	13	Graduation

SUMMER QUARTER

June	1	Registration
June	2	First Day of Classes
June	8	Last Day to Register, Add, or Drop
Aug.	9	Last Day of Classes
Aug.	10, 11, 12	Final Exams
Aug.	13	Graduation

President's Message

WE BELIEVE that every citizen should have the opportunity to study and work in whatever field best suits his individual abilities and desires.

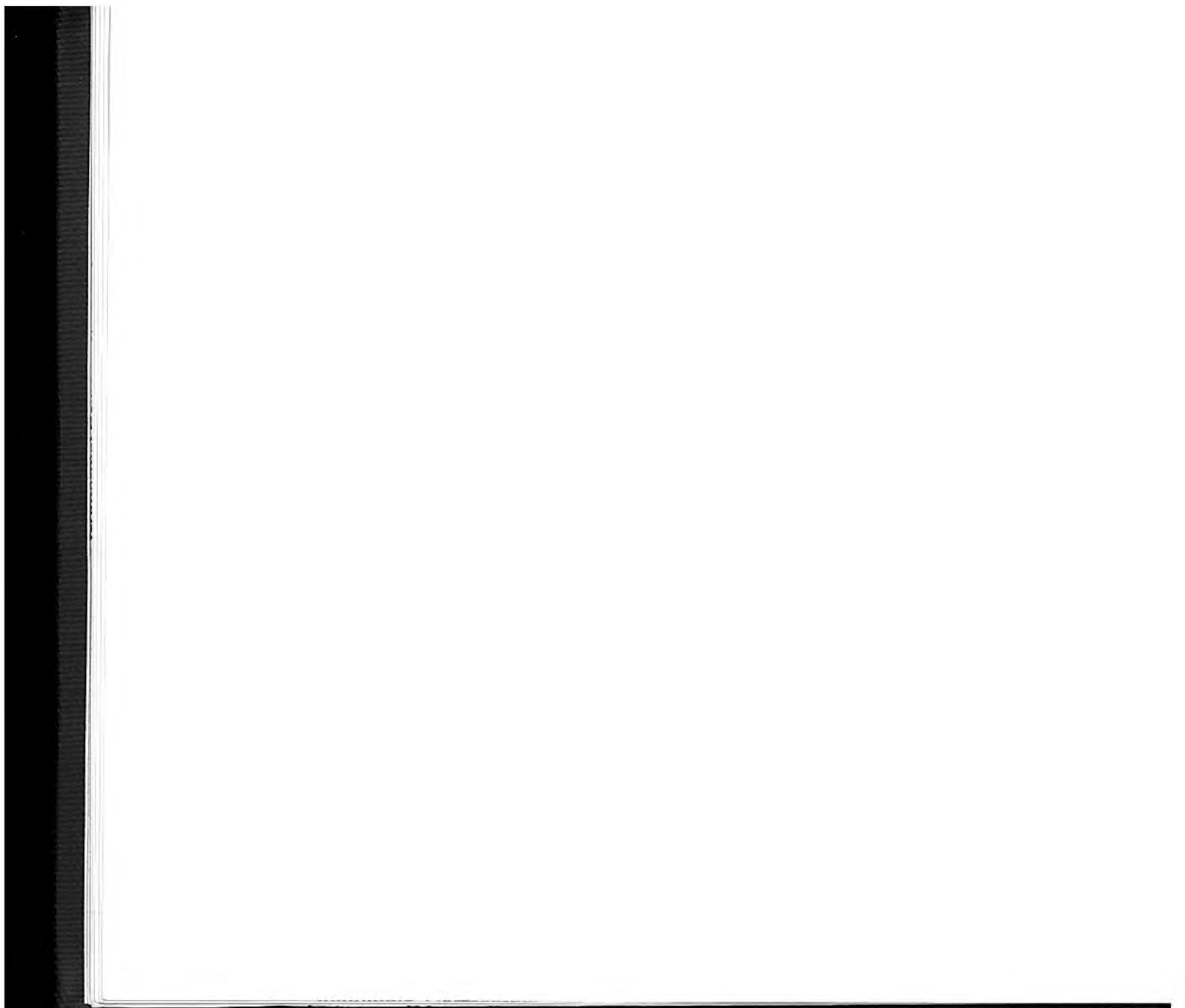
WE BELIEVE that no interested and capable student should be denied the privilege of attending a college or vocational school of the highest quality.

WE BELIEVE that knowledge and skill are essential to a happy productive life for our people and for the welfare of our nation.

WE BELIEVE that since no one's education is ever complete, continuing education can be beneficial to any community.

Because of our belief in these principles, and in the philosophy of the Community College, we are extending every effort to bring to the people of this area the best possible education and training at a price they can afford to pay.

FRED J. EASON
President



General Information

Isothermal Community College was authorized by the 1963 General Assembly under 115A, General Statutes of North Carolina. In 1964, citizens of Rutherford County approved a tax levy to support the College, and necessary capital funds were appropriated to purchase a site and construct the buildings. In 1966, Isothermal Community College formally initiated its four basic programs of instruction, occupying temporary facilities in the Avondale, Caroleen and Spindale communities.

The permanent campus of Isothermal Community College is located between the towns of Forest City and Spindale, North Carolina, adjoining US-74 (By Pass). Buildings are constructed on a wooded site that provides an attractive setting for the modern facilities which serve the people of Rutherford and surrounding counties.

The College is a commuter's college with classes scheduled both day and evenings. Four basic curricula include: college transfer, vocational, technical, and adult education courses. College parallel, technical, and vocational courses are compatible with other college programs throughout the state: Adult education courses are initiated on the basis of adult interest and demand. Qualified instructors fill each position on the teaching staff.

Isothermal Community College is a comprehensive two-year institution. The purpose of the comprehensive college is to provide for all citizens beyond the normal high school age appropriate, economical, and convenient learning opportunities. The various programs include two-year college parallel and technical programs, one-year vocational programs, a variety of educational programs for adults and guidance services for in-school and out-of-school citizens. Isothermal Community College offers help for the student in developing the understandings, dispositions, and habits required for living effectively.

The major aims of this institution are:

1. To provide two years of transferable college credit courses for students desiring to transfer to four-year colleges.
2. To provide two years of technical education appropriate to the needs of the individual and the community.

History of the College

Purpose and Objectives

Purpose and Objectives

3. To provide vocational education for persons desiring to prepare for a trade or upgrade themselves in their present jobs.
4. To provide an adult program based on community needs and interests with special emphasis on the following areas:
 - a. Basic education courses for grades 1 — 8.
 - b. High school equivalency certificate.
 - c. Cultural and community service programs.
5. To provide a program of guidance and instruction which will help all students become effective members of a democratic society.

Accreditation

Isothermal Community College, a member of the American Association of Junior Colleges, is accredited by the Southern Association of Colleges and Schools and by the North Carolina State Board of Education.

Learning Resources Center

The Learning Resources Center provides students, faculty, and members of the community the learning resources common to all of the curriculum. The LRC seeks to coordinate these resources and help develop new patterns of use in the colleges' continuing effort to increase desired learning achievement within each student.

Hours: 8:00 - 9:30 Monday through Thursday
8:00 - 5:00 Friday

OFFICE HOURS. The administrative offices of the College are open Monday through Friday from 8:00 a.m. to 5:00 p.m.

TRAFFIC REGULATIONS.

I. *Registration*

- A. A student is responsible for registering his car(s) at registration for his initial quarter of enrollment, and for reporting new license plates.
- B. There is no charge for car registration.
- C. Each student is required to obtain a parking sticker for each of his cars and to display each sticker on each car.

II. *Parking Areas*

- A. Students park in student parking areas.
- B. Parking regulations are enforced each day that school is in session.
- C. Students may inquire in the Student Personnel Office for emergency permission to park in areas not designated for students.

III. *Speeding*

- A. Speed limits are posted on campus.

IV. *Enforcements*

- A. A system of fines has been established for on campus violations.
 - 1. No campus permit
 - 2. Parking in unauthorized area
 - 3. Illegal Parking

First Offense	\$1.00	Third Offense	3.00
Second Offense	2.00	All subsequent violations	3.00

Upon the sixth violation, the vehicle may be towed to a place of storage at the owner's expense, and will not be released to the owner until all fines are paid.

V. *State Roads*

- A. The main roads on the campus are under the jurisdiction of the State. All regulations referring to parking on roadways, parking on shoulder of road, failure to stop at signs, in addition to speeding, may be handled through the law enforcement agencies.

CHANGES IN REGULATIONS. Isothermal Community College reserves the right to make changes in the regulations, fees, and other matters of policy and procedure when necessary.

ACTION BULLETINS. Action bulletins are initiated by the President of the College to inform students of current information. These bulletins are posted periodically and include information such as changes in regulations, student delinquent lists, and notification of meetings and conferences.

IT IS THE RESPONSIBILITY OF EACH STUDENT AND STAFF MEMBER TO READ AND UNDERSTAND THE CONTENTS OF THESE BULLETINS.

Administrative Regulations

Evening School

EVENING SCHOOL

The purpose of the evening school is to provide an instructional program that will enable the people of our service area to improve their way of life and to participate creatively in our democratic society through class attendance after the normal working day.

The college offers an evening credit program which allows the student to complete the requirements for the Associate of Arts Degree, the Associate of Applied Science Degree, and the Vocational Diploma or Certificate entirely during the evening hours. A student may complete the course requirements for a regular two-year degree program in three years at night and, in addition, a variety of vocational programs may be completed in one year by attending the evening school.

Class schedules of all evening classes are published quarterly and are available upon request from the Student Personnel Office.

GENERAL ADMISSION REQUIREMENTS FOR CREDIT COURSES.

Isothermal operates under an "Open Door" admission policy. Applicants are normally required to have a high school diploma or its equivalent. Exceptions are made in the vocational programs based on the age of the applicant (18 years of age or older). The following are specific requirements for each program.

College Parallel and Technical Applicants:

1. A completed application for admission.
2. A completed health form.
3. Transcript(s) — high school and college (if applicable).
4. Take college placement battery.
5. Interview (review of test scores).

Vocational Applicants:

1. A completed application for admission.
2. A completed health form.
3. High school transcript (if applicable).

Admissions

Practical Nursing applicants must also take the placement test (including Otis I.Q.), have completed the ninth grade and be interviewed by the nursing staff.

Paraprofessional Child Care applicants must have a high school diploma or the equivalent.

TRANSFER ADMISSION REQUIREMENTS. Isothermal Community College will accept any transfer student who has maintained a satisfactory conduct standing at his previous institution. Each applicant requesting transfer of credits from another institution will be considered on an individual basis. Any student on disciplinary suspension from another institution must appear before the Admission Committee for approval or disapproval for admission. Transfer applicants must also meet the admission requirement outlined above. Students transferring 30 quarter hours of credit are not required to submit a high school transcript or take the placement test.

TRANSIENT STUDENTS. Students who are enrolled in or have been accepted by another college may be admitted as a transient student. An application along with a statement of approval to attend Isothermal from the Dean of the student's own college must be filed in the admission Office.

AUDIT STUDENTS. Any person at least 18 years of age will be allowed to audit any course upon submission of an application for admission.

CONDITIONAL ADMISSIONS. Students are cautioned that unless all applicable supporting documents for admission are acknowledged by the Student Personnel Office prior to their initial registration, permission to register for classes may be denied. In the case of extenuating circumstances, a conditional admission to the College may be granted. A conditional admission status may be granted for only one quarter.

ADULT EDUCATION AND EXTENSION ADMISSION REQUIREMENTS. Requirements for admission and application procedures for the numerous adult education programs are dependent upon the nature of the course desired. Interested persons should contact the Office of the Director of Adult Education and Extension Programs for specific information.

READMISSION. Any student having been suspended from the College for any reason must submit an application for readmission to the Registrar, if he desires readmission during the suspension period.

PLACEMENT TESTS. The following tests are given to all applicants applying for the college parallel, technical and nursing programs. The tests are used only for placement purposes.

1. Cooperative English Test—English Expression Part
2. Nelson-Denny Reading Test
3. College Qualification Test

Applicants and local area secondary schools are notified concerning testing dates and are encouraged to take the placement tests at their earliest convenience.

Admissions

Testing

Testing

G.E.D. Isothermal Community College offers the General Educational Development Program (G.E.D.) to adults who did not complete their high school education. Upon successful completion of a series of tests, a North Carolina Certificate of High School Equivalency will be awarded. Isothermal accepts the certificate from applicants desiring to enter the College in either the college parallel or technical division.

Individuals interested in applying for the G.E.D. Program should make application to be tested at the Office of Student Personnel Services. Tests are administered daily. Arrangements can be made for evening testing.

Registration

REGISTRATION

The College operates on the quarter system. All students are expected to register during the time set aside for that purpose. Registration dates are listed in the College Calendar published in the front of this catalog. Registration clearance must be secured from the Student Personnel Office before the student is permitted to register.

TUITION AND FEES

Isothermal Community College receives financial support from local, state, and federal sources, allowing each student an education opportunity at a minimum cost. Tuition fees are set by the State Board of Education and are subject to change without notice. Cost of textbooks and supplies are additional expenses which vary according to the program of study. The payment of all fees is required at the time of registration. If a student can not pay his fees during registration, he is required to make some arrangements with the Business Manager's Office prior to his registration date. Payment of fees will not be deferred unless there is extreme hardship and very good indication that the student will be able to pay the fees within the ten-day limit authorized by the Board of Trustees.

Beginning July 1, 1975, tuition charges for all programs are as follows:

	In-State	Out-of-State
12 quarter hours or more	\$33.00 per quarter	\$137.50 per quarter
Less than 12 quarter hours	\$ 2.75 per qtr. hr.	\$ 11.45 per qtr. hr.
Activity fee	\$10.00 per quarter	\$ 10.00 per quarter

*Student activity fee of \$10.00 applicable only if 7 or more quarter hours are carried.

Tuition and Fees

REFUND POLICY. Tuition refunds shall be made if in the judgment of the institution the student is compelled to withdraw for unavoidable reasons. "In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within ten calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered for \$5.00 or less, except if a course or curriculum fails to materialize, then the entire tuition will be refunded."

LATE REGISTRATION FEE. A \$5.00 late registration fee is charged all students who register after registration day.

STUDENT ACTIVITY FEE. A student activity fee of \$10.00, \$10.00, & \$8.00 is charged each of the first three quarters, Fall, Winter, and Spring, respectively for students registering for seven hours or more. There is no Student Activity fee for summer quarter. The proceeds from this fee are budgeted cooperatively by students and faculty in support of non-curricular activities. Part-time students may purchase a student activity card. Students are advised that without the activity card admission charged may be assessed at certain student activity functions.

BOOKSTORE. The College operates a bookstore where the student may purchase needed books and supplies with profits being used for college projects and services. The hours of operation are 9:00 a.m. to 1:00 p.m. Monday through Thursday, closed all day Friday.

Used books will be purchased by the bookstore if they continue to be approved for use as a text. Used prices will be determined by the condition of the book. In no case will the repurchase price be more than 50 percent of the original price.

All students should attend class before buying books. A student who does not attend class before buying books for a course could easily buy the wrong book. Any book sold will be considered used when repurchased even though the incorrect book was purchased.

CLASS RING AND GRADUATION FEE. All orders for class rings, caps and gowns, and graduation invitations will be coordinated by the Registrar's Office. Notices will be posted relevant to dates for measurements. Students who are graduating should see that their orders are placed on the date specified in the bulletin.

Tuition and Fees

Academic Matters

Academic Matters

ACADEMIC CONTINUATION. *Probation.* A student with 25 to 59 cumulative quarter hours attempted with less than 1.0 cumulative grade point average will be put on probation. A student with 60 or more cumulative credit hours attempted with less than 1.5 cumulative grade point average will be put on probation.

Suspension. The quarter following probation:

A student regardless of cumulative hours attempted, must carry seven (7) or more credit hours the probationary quarter.

A student with 25 to 59 cumulative quarter hours attempted and carrying seven (7) or more credit hours the probationary quarter must have a current grade point average of 1.5 or more or be suspended.

A student with 60 cumulative credit quarter hours attempted and carrying seven (7) or more credit hours the probationary quarter must have a current grade point average of 1.7 or more or be suspended.

Practical Nurse Education. All students enrolled in the Practical Nursing program must complete each PNE course with the grade of C. If the grade of C is not accomplished for all courses within a quarter, the student will not be allowed to register for the next quarter in the Practical Nurse Program.

GRADING SYSTEM. Isothermal Community College is on a quarter system. Normally, one unit of credit is equal to one class hour meeting time per week. Where the laboratory is required, one credit hour will equal at least two contact hours. Where shop/clinical/practicum is required, one credit hour will equal at least three contact hours.

The grading system is as follows:

	Grade Significance	Quality Points
A	Excellent	4 per quarter hour
B	Above Average	3 per quarter hour
C	Average	2 per quarter hour
D	Below Average	1 per quarter hour
F	Failure	0
WP	Dropped Passing	0
WF	Dropped Failing	0
I	Incomplete	0
Y	No Credit (Audit)	0

A grade of "I" is assigned when the course work is incomplete. This grade can be removed if the course work is completed satisfactorily within one quarter.

Courses with earned grades of "D" or "F" may be repeated. Courses with earned grades of "C" or better may be repeated only by special permission from the Dean of Instruction.

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ACADEMIC LOADS. A load of 12-19 credit hours constitutes a normal load for a student enrolled in the college parallel division. A load of 12-21 credit hours constitutes a normal load for a student enrolled in the technical or vocational division. Students who wish to register for more than the normal load must get the approval of the Dean of Instruction.

CLASS ATTENDANCE. Each instructor at Isothermal Community College sets his own attendance policy. At the beginning of each quarter, the instructor gives a written copy of his attendance policy for that quarter to each student in his class. The attendance policy explains the relationship between class attendance and grades.

EXAMINATIONS. Final examinations in all subject areas are held at the end of each quarter. The examination record combined with the record made in class constitutes the student's final grade.

COURSE CHALLENGE POLICY. Any student may petition through the Division Chairman for permission to challenge a course through a comprehensive exam for credit. Procedure for challenging is as follows:

1. The student must consult with his advisor, must be registered for the course and in good standing.
2. If the exam is failed, he must continue the course.
3. No course may be challenged but one time.

GRADE REPORTS. A written mid-term report will be mailed to the student if the student is failing a course before the end of the sixth week. Final grade reports are furnished to the student at the end of each quarter.

STUDENT CLASSIFICATION

Freshman—A student who has earned fewer than 45 quarter hours of credit.

Sophomore—A student who has 45 or more quarter hours of credit.

Special—A student taking courses for special credit only.

Part-Time—A student who is enrolled for less than 12 quarter hours.

Academic Matters

Academic Matters

SCHEDULE CHANGES. In order to drop or add a course or to change a course section, the following steps should be adhered to before the changes are official:

1. Secure change of schedule form from Student Personnel Office.
2. Drops or adds must be approved by the faculty advisor and instructor. (No one will be allowed to drop, add, or change sections after the last day to register.)
3. Change of sections must be approved by the instructor(s) involved.
4. All notifications of schedule changes must be acknowledged and recorded by the Registrar before the change is official.

A student may officially drop a course during the drop-add period without academic penalty. If a student drops a course after this deadline, he will receive a grade of "WP" (dropped passing) or "WF" (dropped failing). A "WF" is averaged as a "F" in computing the grade point average.

WITHDRAWAL.

In order to officially withdraw from the College, the student must follow the procedures listed below:

1. Withdrawals must be made through the Student Personnel Office.
2. Withdrawals should be made in person if possible.
3. All withdrawal forms must be recorded in the Registrar's Office for the withdrawal to be official.
4. Withdrawals must also be checked out by the Business Office.
5. The official date of withdrawal will be the exact date the student makes his request for withdrawal.
6. Students who withdraw after the drop-add period must receive a grade of "WP" or "WF". Students who leave school without officially withdrawing will receive the grade of "F" on all courses.

REQUIREMENTS. Requirements for the degree or diploma will vary according to the curriculum. The student should refer to the required courses in the catalog which applies to his program so that he can ascertain the course requirements for graduation.

In the case of students transferring into Isothermal Community College, at least half of the credits required for graduation must be earned at Isothermal Community College or a member institution within the North Carolina System of Community Colleges.

Withdrawal from College

Graduation

COMMENCEMENT EXERCISES. Commencement exercises to award degrees and diplomas to students in respective divisions are held at the conclusion of the spring and summer quarters. Students are expected to file graduation applications with the Registrar's Office at least one quarter preceding commencement exercises. The specific dates of graduation are listed in the College Calendar in the front of this catalog. All students who are eligible to receive degrees and diplomas are expected to participate in graduation exercises unless excused in writing by the Dean of Instruction. Students should submit their excuse in writing at least one month in advance of graduation.

Graduation

DEAN'S LIST WITH HIGHEST HONORS. The Dean's List is designed to recognize all students whose academic performance is outstanding. In order to qualify for the Dean's List with Highest Honors, a student must carry at least twelve (12) quarter hours of credit work during the quarter and maintain a 4.0 quality point average for the quarter.

DEAN'S LIST. In order to qualify for the Dean's List, a student must carry at least twelve (12) quarter hours of credit work during the quarter and maintain a 3.0 quality point average for the quarter.

Honors

GRADUATION WITH HONORS. Students who complete a degree or diploma program with a quality point ratio of 4.0 will be graduated with High Honors. The student who earns a quality point ratio of 3.00 to 3.99 will be graduated with Honors.

AWARDS DAY. Awards Day is an annual assembly, held to recognize students whose scholarship, leadership, citizenship and service have been meritorious and noteworthy. Each division as well as departments of Isothermal Community College is entitled to give recognition to those students whose achievements have evinced the highest level. Appropriate certificates, trophies, or plaques and letters of citation are presented to the winners.

Honors

WHO'S WHO AMONG STUDENTS IN AMERICAN JUNIOR COLLEGES. Annually, a directory recognizing outstanding campus leaders from over 500 junior colleges in the 50 states and the District of Columbia is published in Tuscaloosa, Alabama. Only second-year college students are eligible for nomination. Nominees are selected each year by a faculty committee, composed of representatives from each department of the College. The number of nominees is determined by the national office, based on present enrollment. The selection committee is instructed to consider students whose academic standing, service to the community, leadership in extracurricular activities and future potential are decidedly above average. The winners submit biographical information which is included in the Directory, receive a certificate suitable for framing, and are eligible for placement service when they seek employment.

Student Services

All student services and out-of-class activities are coordinated through the Office of Student Personnel Services. Professional staff members are available to provide assistance to individual students and groups on matters affecting student well being. This section of the catalog outlines the various services available at the College.

STUDENT COUNSELING. The Student Counseling Center is located in the Office of Student Personnel Services and is in operation for the benefit of all students.

A professional counseling staff is available to assist the student with personal, social, educational, or vocation problems. Referral is not necessary, and students with problems or questions are encouraged to see members of the counseling staff at any time. Group counseling sessions are encouraged in cases where several students wish to talk over a similar problem.

Included in the counseling program are individual and small group tests which may be given on student request, and/or on the recommendation of the counselor. Specific academic subject areas, problem check lists, and interest inventories are among the tests available.

Occupational and educational information is on file in the Center and students are encouraged to use the pamphlets, books, college catalogs, brochures and leaflets on hand. Students who cannot find desired information should contact the counselor for assistance.

Student Services

ACADEMIC COUNSELING. Any student whose cumulative quality point average is less than 1.0 at the end of any quarter will be requested to report to the Office of Student Personnel Services for counseling. The counselor will attempt to identify the problems of the student. If mutually agreed, the counselor may direct the student to a program for which he is better qualified.

PLACEMENT SERVICE. Student Placement Services is an employment referral service, which coordinates the part-time and full-time employment opportunities for Isothermal students. The college service will give special attention to the placement of students who graduate in occupational educational curriculums. Information on employment opportunities are posted on the Student Personnel and Occupational bulletin boards. Information and registration materials can be obtained from the Occupational Counselor.

HEALTH SERVICES. Each student is required to complete a record of medical history prior to enrollment. Health problems are identified and recorded for future reference in the case of an emergency. Building construction on campus allows for the use of a wheelchair in each building.

Although there is no infirmary on the campus, a first aid station is available in the Administration Building for treatment of minor injuries. First aid supplies are maintained in shop areas and at secretaries' desks in the Library, Occupational Building, and Adult Education Building. Arrangements for emergency treatment are referred to local physicians. In all cases involving serious illnesses or accidents, the next of kin will be notified immediately.

Procedure in case of accident or sickness:

1. In the event of accident or emergency, notify the Student Personnel Office immediately.
2. If the accident is believed serious, the student should not be moved, but made more comfortable until help arrives.
3. If the student is able to move, he should be assisted and taken directly to Room 123 in the Student Personnel Office.

HOUSING. The College does not provide living accommodations for students. A list of available housing is prepared annually to assist out-of-state students in locating housing facilities. In all cases the student is responsible for making his own housing arrangements. The College assumes no responsibility for rental negotiations between student and homeowner.

FOOD SERVICES. Food and beverages are served through vending machines in the Student Center and in the canteen which is located near the Adult Education Building. Light lunches may be secured throughout each day of operation.

Student Services

STUDENT CENTER. The College operates a Student Center for relaxation and recreation during the day and in the evenings. Available for student use are the following: a pay telephone, a juke box, and ping-pong tables. Students are urged to make recommendations to the elected officers of the Student Government Association relevant to additions or deletions of recreational equipment or food matter.

ACCIDENT INSURANCE. Two accident insurance plans have been authorized by the College on a voluntary basis for the welfare of students and staff. The College urges each student to purchase accident insurance during his initial registration. The two plans are:

- Plan I This plan provides benefits for a full 24 hours per day for the 12-month period for covered accidents. Provides protection not only at school, but also any time school is not in session. The premium is \$17.00 per student. The premium for teachers, administrative and clerical employees is \$25.50 per employee.
- Plan II This is a limited policy covering only bodily injuries resulting from covered school-associated accidents. Students who enrolled under Plan I do not need and are not eligible for protection under this plan. The premium is \$3.50 per student.

ORIENTATION FOR FRESHMAN AND TRANSFER STUDENTS. The purpose of Orientation Day is to introduce the student to his new environment and to acquaint him with the policies and ideals of the College. During the program, new students will have the opportunity to meet the college administrators, the secretarial staff, and various student leaders. Orientation attendance is required of all new students.

VETERAN AFFAIRS. Veterans entitled to educational assistance from the Veterans Administration should visit the Student Personnel Office as early as possible for the purpose of making application to the Veterans Administration. Veterans are required to provide the Veterans Administration copies of their DD-214, and the following, if applicable: marriage license, birth certificates for all children, and any separation papers for either the veteran or his spouse, if either was previously married. The veterans representative in the Student Personnel Office will assist in completing the Veterans Administration application, and will submit the required Certification of Enrollment for each student.

The Veterans Administration uses the following schedule of hours to determine veterans benefits. According to the Veterans Administration, the following number of credits or hours constitutes what is considered full-time, three-quarter time, and one half time in each division:

Courses Leading To A Standard Degree

College Parallel and Technical

Full time 12 or more quarter hours of credit

$\frac{3}{4}$ time 9-11 quarter hours of credit

$\frac{1}{2}$ time 6-8 quarter hours of credit

Courses Not Leading To A Standard Degree

Vocational Programs

Full time 30 clock hours

$\frac{3}{4}$ time 22-29 clock hours

$\frac{1}{2}$ time 15-21 clock hours

Isothermal Community College provides a variety of extra-curricular activities for students. All student activities are coordinated through faculty supervision. Listed below are the opportunities available at the College for students to express and develop special interests.

STUDENT GOVERNMENT ASSOCIATION. All students of the College are members of the Student Government Association and are entitled to all membership privileges of the organization. The Student Government Association is active in promoting the interests of the students, improving facilities, planning social functions, and assisting student organizations.

The President of the Student Government Association is the chief executive which includes divisional representatives and members at large. Student interest and assistance are welcomed. The S.G.A. President is a voting member of all college committees, including the President's Administrative Council.

INTRAMURAL SPORTS. The objective of the intramural program is to offer each student an opportunity to participate in organized sporting activities. Students need not be athletes to become involved, most activities do not require a high degree of skill; all that is needed is a desire to have FUN. Supervised competition is organized throughout the year, including activities such as: flag football, checkers, basketball, tennis, volleyball, table tennis, cross country, softball, etc. The intramural program will sponsor any sport activity in which adequate student interest is expressed, — time, equipment, and facilities permitting. A highlight of the intramural program is Sports Day, which offers students the opportunity to represent their college in competition against students from neighboring two-year institutions.

Student
Services

Student
Activities

Student Activities

Participants who excel in each activity are given college-wide recognition through an awards system. In addition, an *Outstanding Intramural Participant Award* is presented to the male and female who accumulate the most points during the academic year. Points are earned through participation, officiating, and for placing first, second or third in tournament play.

To be a success, the intramural program needs student suggestions, participation, and assistance in planning and conducting the various activities offered. All students are encouraged to get involved in any way they can.

INTERCOLLEGIATE ATHLETICS. The College offers athletics on the intercollegiate level in basketball, golf, and tennis. Isothermal Community College is a member of the NJCAA. Male students are eligible for varsity participation providing they meet the eligibility requirements prescribed by the NJCAA. The College is a member of the Western Tarheel Conference. All nine conference members are schools within the N. C. Department of Community College System.

ALUMNI ACTIVITIES. Isothermal Community College maintains a list of alumni and keeps them informed of college activities by means of a newsletter several times a year.

LECTURES AND CONCERTS. The Fine Arts Committee exists to bring programs in painting, drama, music, dance, art, cinema, and literature to the College for the enjoyment of both students and community. It attempts to present the arts not only as aesthetic enjoyment, but also as reflections and interpretations of an era. To these ends, the Committee has in the past sponsored art exhibits, foreign films, music recitals, and lecturers. The Committee invites both local participants and visiting scholars, and also artists from other colleges and universities to present programs.

COLLEGE SINGERS. The College Singers provide musical concerts for the enjoyment of the students and general public throughout the year. Its membership is open to all students with vocal or other musical talent and interest.

PUBLICATIONS. "SENTINEL", the college yearbook, is compiled and edited by an elected staff of students with assistance provided by faculty advisors. Each student who enrolls for two quarters and pays activity fees two quarters each year will receive the "Sentinel" without further charge.

"PATRIOT", the college newspaper, is published twelve times per year. Through this media students are advised of activities on campus.

AFRO AMERICAN CLUB. This club is open to all students. It is organized to create more interest and understanding in black culture; to develop character and encourage improvement in student-faculty communication; and, to strengthen the confidence of young men and women in themselves and their work.

CHESS CLUB. The Chess Club was organized during the academic year 1970-71. The club has been active in maintaining a chess ladder on the campus. Chess boards are maintained in the Library.

COLLEGIATE CIVITAN INTERNATIONAL. This club is a co-educational organization to provide a better campus and a better world by rendering altruistic service, by providing leadership training and by encouraging daily living by the Golden Rule and the enlargement of all human relationships.

INTERCLUB COUNCIL. Membership in the Interclub Council is open only to presidents of campus clubs or organizations. This group acts as a line of communication to all campus clubs or organizations and provides information to the student body pertinent to meetings and events. The Council establishes guidelines for the selection of "Outstanding Students" and "Miss I.C.C." each year.

PATRIOT TOASTMASTERS CLUB. The Patriot Toastmasters Club is composed of bonafide members of ENGLISH 0160. Membership after completing this course shall be voluntary. The purpose is to advance the public speaking skill and knowledge by club participation of the members.

PHI BETA LAMBDA. The Phi Beta Lambda is a local chapter of a national organization. This organization has as its purpose aiding students in the development of competent, aggressive business leadership, and to create more interest and understanding in their choice of business occupations.

PHI THETA KAPPA. Our chapter, Sigma Chi, was organized to recognize students of top academic standing at Isothermal Community College.

FINANCIAL AID. Isothermal Community College is a participant in federal and state financial aid programs. Awards are based on financial need as projected through a national and local needs analysis system. These financial aid applications are made available through the local high school guidance offices or the office of financial aid at Isothermal Community College. The student's need is derived by analyzing the total financial picture of the student and his family. The recipient must maintain satisfactory progress in his course of study and must show average academic achievement.

Students may secure information and financial aid applications by contacting the Director of Financial Aid in the Student Personnel Office. Listed below are the programs of financial assistance that are available at the College.

Student Activities

Financial Assistance Program

Financial Assistance Program

BASIC EDUCATIONAL OPPORTUNITY GRANT (BEOG). The Basic Educational Opportunity Grant is a federally sponsored aid program designed to provide financial assistance to those who need aid to attend a post-high school educational institution. The main factor used to determine the Family Contribution is the family income. As a general guideline, if a family's annual income is \$12,000 (for a family of four) or less, you may receive a grant. The average grant for Isothermal students has been \$490 per academic year. Applications for the Basic Grant can be obtained at the local high schools, at any post-high school institution (university, junior or senior college, technical or vocational school), or at any public library.

SUPPLEMENTAL EDUCATION OPPORTUNITY GRANT (SEOG). This program is available to students with exceptional need. Supplemental Educational Opportunity Grants vary in amounts in direct relationship to an individual's needs and the availability of funds. Grants can range from \$200 to \$1,000 a year and can be no more than one-half of the total assistance to the student.

COLLEGE WORK-STUDY PROGRAM. Students, particularly those from low-income families, who need a job to help pay for college expenses are potentially eligible for employment by their colleges under federally supported work-study programs.

The amount of hours a student can work a week will depend on the student's academic load. During the summer or other vacation periods when they do not have classes, students can work full-time (40 hours per week).

NATIONAL DIRECT STUDENT LOANS. National Direct Student Loans are awarded in conjunction with other forms of financial assistance. The repayment period and the interest does not begin until nine months after the student ends his studies. The loan bears interest at the rate of three (3) percent each year and repayment of principal may be extended over a ten-year period, except that Isothermal Community College requires a minimum repayment of \$15.00 a month.

If the borrower becomes a full-time teacher in a public or private non-profit elementary or secondary school in a low-income district, a full-time staff member in certain preschool programs, a teacher of handicapped children in a public or private nonprofit elementary or secondary school, or a member of the armed forces engaged in service that qualifies for combat pay, he/she may be eligible for loan cancellation at varying rates.

Other forms of financial assistance are available.

SCHOLARSHIP LOAN FUND FOR PROSPECTIVE TEACHERS OF NORTH CAROLINA. This loan program is administered through the State Department of Education. Maximum loan consideration is \$600 per year and is renewable for four years. A percentage of the loan will be cancelled for each year of teaching service in North Carolina. Applications can be obtained from the Financial Aid Director in the Student Personnel Office. Students are advised to submit their applications early in the year.

GUARANTEED LOAN PROGRAM. Loans are available to both incoming freshmen and currently enrolled students through the Guaranteed Loan Program. Under this program, one may borrow from a bank or other private financial institutions. Additional information and applications can be obtained through the Director of Financial Aid.

VOCATIONAL WORK-STUDY PROGRAM. Designed to provide part-time employment for technical and vocational students who need the earnings from such employment to continue their education on a full-time basis.

VOCATIONAL REHABILITATION. Vocational Rehabilitation offers services necessary to enable a student who is disabled to become self-supporting. Eligible handicapped persons may receive financial assistance while enrolled at Isothermal Community College.

Prospective students having a disability who desire to apply for training under the provisions of this program should contact the Division of Vocational Rehabilitation Office in their respective county.

CONDUCT. The conduct of a student, both in and out of school, will be measured on an adult standard. He assumes full responsibility for the consequences of his actions and behavior. It is the personal responsibility of each student to uphold the rules and regulations of Isothermal Community College. The College reserves the right to dismiss any student who in its judgment conducts himself in a manner that is not in compliance with the purposes of this institution.

DRESS. One of the purposes of college experience is to afford a student the opportunity to practice effective personal grooming. Appropriate dress is encouraged and required. While the College aims to honor the individuality of each student, it reserves the prerogative to announce and implement regulations concerning dress.

ADDITIONAL INFORMATION ON RULES AND REGULATIONS IS CONTAINED IN THE STUDENT HANDBOOK. IT IS THE INDIVIDUAL RESPONSIBILITY OF EACH STUDENT TO READ AND UNDERSTAND THIS HANDBOOK.

Financial
Assistance
Program

Student
Responsibility

Curriculum Programs

College Library
COLUMBIA, N.C.

Curriculum programs at Isothermal Community College fall into two major categories — college transfer and occupational. Transfer programs are those designed primarily for those students who are planning to attend a four-year college or university; occupational programs are divided into one-year or less (vocational) or two-year (technical) programs which allow the students to enter business or industry in their own or in other communities. Programs leading to the various degrees are offered both day and night (indicated in course outlines); some subjects in these programs may be taken on a self-instructional basis through the Learning Resources Center.

TECHNICAL

- V-033 Associate Degree for Vocational Instructors
- T-018 Business Administration
- T-073 Early Childhood Specialist
- T-045 Electronics Engineering Technology
- T-033 General Office Technology
- T-049 Industrial Supervision and Management
- T-064 Police Science
Recreational Technology*
- T-030 Secretarial - Executive
Secretarial - Medical*

COLLEGE TRANSFER

- C-004 Pre-Business Administration
- C-004 Industrial Management Option
- C-026 Pre-Business Education
Pre-Drama*
- C-007 Pre-Engineering
- C-010 Pre-Law
- C-011 Pre-Liberal Arts
- C-012 Pre-Mathematics
- C-013 Pre-Medical
Pre-Music*
- C-018 Pre-Science
- C-019 Pre-Social Work
- C-035 Pre-Teaching — Early Childhood
- C-020 Pre-Teaching — Elementary
- C-028 Pre-Teaching — Secondary

* These programs are currently inactive. Should student interest and community need arise, they will be re-activated.

VOCATIONAL

- V-001 Automotive Body Repair
- V-003 Automotive Mechanics
Carpentry & Cabinetmaking*
- V-067 Child Care Worker
Clothing Construction & Design*
- V-009 Cosmetology (contract)
- V-018 Electrical Installation & Maintenance
- V-042 Electronic Servicing
- V-033 Industrial Mechanics
Light Construction*
Masonry*
Nurse Assistant*
Operating Room Assistant*
- V-038 Practical Nursing
- V-050 Welding

Curriculum Programs

College Transfer Programs

OBJECTIVES

To provide opportunities for students to complete the general educational requirements leading to an Associate of Arts (A.A.) degree or to an Associate of Science Degree (A.S.). Courses in this program transfer to senior (4 year) institutions. The final decision on transferability rests with the institution *to which* the student transfers.

GRADUATION REQUIREMENTS

A student wishing to complete the requirements for an A.A. or A.S. degree must earn 96 quarter hours of credit with an overall grade point average of 2.0 or better. Fifty-three (53) of these hours are in designated areas while the other 43 are termed electives. A student may fulfill these requirements through a general liberal arts course of studies, or through consultation with his advisor he may channel his choice of electives in a patterned way toward his future major area of concentration. Suggested preparatory areas of concentration include: Pre-Law, Pre-Business Administration, etc. It is not necessary to complete all the specific suggestions in a preparatory area in order to graduate if all general graduation requirements are met.

COURSE NUMBERING SYSTEM

College transfer courses are indicated by a four (4) digit number beginning with "0". Any such numbered course may be taken for graduation requirements except those designated in the course description by *T*. No course with a four digit number beginning with "1" may be taken for college transfer graduation requirements. All Physical Education courses — regardless of number — may be taken either during the first or second year.

Subject	Course	Credit Hours
History	History 0101, 0102, 0103	9
Communications	English 0101, 0102, 0103 (must be taken in sequence)	9
Literature	English 0201, 0202	6
Mathematics	Math 0101, or Math 0121	5
Natural Science	One Lab Science (3 courses) Biology 0101-0102-0103 or Chemistry 0101-0102-0103 or Physics 0201-0202-0203 or Physical Science 0101-0102-0103	12
Physical Education	May be taken from any of the following physical education activity courses PER 0101-0162 or 0201-0207	3
Humanities	May be taken from among any Art, Music, Religion, or English courses (except English 0100 or English 0104)	6
Social Science	May be taken from among any Psychology, Religion, Sociology, Anthropology, Economics, History, Geography, Political Science courses.	3
Electives	May be chosen from among any first digit "0" courses not designated T	43

Graduation Course Requirements

Curriculum Description

Transfer Curriculum — Day

First Quarter	
English 0101	3
History 0101	3
Natural Science	4
Humanities	6
PER	1
	17
Second Quarter	
English 0102	3
History 0102	3
Natural Science	4
Math	5
PER	1
	16
Third Quarter	
English 0103	3
History 0103	3
Natural Science	4
Social Science Elective	3
PER	1
Electives	3
	17
Fourth Quarter	
English 0201	3
Electives	12
	15
Fifth Quarter	
English 0202	3
Electives	12
	15
Sixth Quarter	
Electives	16

Transfer Curriculum — Night

First Quarter	
English 0101	3
History 0101	3
Elective	3
Second Quarter	
English 0102	3
History 0102	3
Elective	3
Third Quarter	
English 0103	3
History 0103	3
Elective	3
Fourth Quarter	
PER	1
Humanities Elective	6
Fifth Quarter	
English 0201	3
Electives	6
Sixth Quarter	
English 0202	3
Electives	6
Seventh Quarter	
Math	5
Social Science Elective	3
Elective	1
Eighth Quarter	
PER	1
Electives	6
Ninth Quarter	
Natural Science	4
Elective	3
Tenth Quarter	
Natural Science	4
Elective	3
Eleventh Quarter	
Natural Science	4
Elective	3
Twelfth Quarter	
PER	1
Electives	6

A student through consultation with his advisor may channel his choice of electives in a patterned way toward his future major area of concentration. It is not necessary to complete all the specific suggestions in a preparatory area in order to graduate if all general education requirements are met.

Early Childhood

BIO must be taken as a Natural Science
EDU 0101
EDU 0102
PSY 0102
SOC 0101
PSY 0103
EDU 0204
EDU 0210
EDU 0211

Pre-Business Education

SOC 0160
MUS 0161 *or* ART 0260
ENG 0203
MAT 0101 *or* 0121
ENG 0160
PSY 0260
BUS 0101-2-3 (may demonstrate competency for 0101)
BUS 0104-5-6
ECO 0201-2-3
BUS 0210-11-12

Industrial Management Option

10 hrs. Math — Either 0101 & 0102 *or* 0121 & 0122
ECO 0201-0202-0203
BUS 0101 (may demonstrate competency)
At least 3 courses from among the following:
ISC 0101 ISC 0202
ISC 0102 ISC 0203
ISC 0103 ISC 0204
ISC 0105 ISC 0205

Pre-Business Administration

10 hrs. Math — Either 0101 & 0102 *or* 0121 & 0122
ECO 0201-0202-0203
BUS 0101 (may demonstrate competency)
BUS 0210-0211-0212

Pre-Science/Pre-Medical*

10 hrs. Math 0121 & 0122
24 hrs. Natural Science
12-18 hrs. math and/or science electives

Pre-Law

Political Science 0260-1-2
History 0260-1-2

Engineering/Math*

30 hrs. Math
0121-0122-0131-0132-0133-0231
Chemistry or Biology & Physics must be taken

Pre-Social Work

PSY 0260-0261-0262
SOC 0160-0161-0162

Pre-Teaching—Elementary and Secondary

Biology must be taken as Natural Science
American Literature must be taken
ISC 0105 ISC 0206
ISC 0201

Suggested
Preparatory
Areas of
Concentration

*Associate of Science degree will be awarded to those students completing the general liberal arts requirements and the suggested preparatory areas of concentration in Pre-Science/Pre-Medical and in Engineering/Math.

Occupational Education

Occupational education programs at Isothermal Community College have been carefully planned to train individuals to qualify for the more skilled jobs in both technical and vocational work. Our planning of these programs has been centered around the needs of our community and its people. Our chief objective is to prepare persons who wish to develop business and industrial competencies for skilled employment.

Some courses in occupational education are not designed for transfer to other institutions. In the technical area these courses begin with "0" as the first digit of four digits and are designated T in the course descriptions. In the vocational area these courses begin with "1" as the first of four digits in the course descriptions.

TECHNICAL PROGRAMS

Courses in the technical program are designed to meet the increasing demand in the community for high level skills. The technical curriculum requires two years for completion. All students, regardless of program, must complete the following requirements for graduation with the Associate of Applied Science Degree (A.A.S.):

1. A minimum of 96-108 quarter hours of earned credit according to the program.
2. A minimum of a 2.0 grade point average.
3. A minimum of 18 quarter hours in the areas of English, Social Science, and Humanities, and not less than 3 quarter hours in each field. A student may be exempt from any area upon the approval of the appropriate division chairman.
4. All specifically designated courses in each program must be taken. These may be found in the program outlines in the following section.
5. A person may obtain a Certificate of Completion for the Industrial Supervision and Management Program by completing the 30 quarter hours as designated in the outline in the following section.

VOCATIONAL PROGRAMS

Isothermal Community College offers various programs in the professions and trades which require from one to four quarters to complete. Students may earn either a diploma or certificate depending upon their choice of program. All students, regardless of program, must complete the following requirements for graduation:

1. A minimum of 2.0 grade point average.
2. All specifically designated courses in each program must be taken. These may be found in the program outlines in the following section.
3. A Certificate of Completion may be obtained through the evening programs by completing the designated courses in the outlines in the following sections.

Technical Programs

First Quarter

Course Title	Credit Hours
ENG 0101 Freshman Composition	3
BUS 0101 Beginning Typewriting*	3
MAT 0110 Business Math	
<i>or</i>	
MAT 0111 Technical Math.....	3 or 5
BUS 0210 Principles of Acct	3
Electives.....	3
	15 or 17

Second Quarter

ENG 0102 Freshman Composition	3
BUS 0107 Business Machines.....	3
BUS 0110 Business Law.....	3
BUS 0112 Business Finance	3
BUS 0211 Principles of Acct	3
PSY 0201 Business Psychology	3
	18

Third Quarter

ENG 0104 Business Communications	3
BUS 0111 Business Law	3
BUS 0212 Principles of Acct	3
BUS 0214 Business Management	3
<i>or</i>	
ISC 0101 Industrial Management	6
Electives.....	6
	18

*May demonstrate competency.

PERSONNEL MANAGEMENT OPTION: Students wishing to get a concentration in this area should take as electives the following courses: ISC 0102, ISC 0105, ISC 0106, and ECO 0261.

Fourth Quarter

Course Title	Credit Hours
ENG 0160 Public Speaking	3
BUS 0217 Taxes	4
BUS 0218 Sales Development.....	3
BUS 0220 Marketing.....	3
<i>or</i>	
ISC 0103 Industrial Marketing	
ECO 0201 Principles of Economics	3
Electives	3
	19

Fifth Quarter

BUS 0221 Advertising	3
BUS 0224 Personnel Management	3
ECO 0202 Principles of Economics	3
Electives	6
	15

Sixth Quarter

EDP 0101 Data Processing.....	3
BUS 0113 Credit Proc. & Probl	3
BUS 0216 Principles of Superv.....	3
<i>or</i>	
ISC 0201 Foremanship Supervision	
Electives.....	6
	15

Business
Administration
(Day)

Business
Administration
(Night)

First Quarter — Fall

<i>Course Title</i>	<i>Credit Hours</i>
ENG 0101 Composition	3
BUS 0210 Accounting	3
BUS 0101 Typewriting*	3
Elective	3
	12

Second Quarter — Winter

ENG 0102 Composition	3
BUS 0211 Accounting	3
PSY 0201 Business Psychology	3
BUS 0221 Advertising	3
	12

Third Quarter — Spring

ENG 0104 Business Communications ..	3
BUS 0212 Accounting	3
EDP 0101 Data Processing	3
Elective	3
	12

Fourth Quarter — Summer

MAT 0110 Business Math	
<i>or</i>	
MAT 0111 Technical Math.....	3 or 5
Electives	9 or 6
	12 or 11

Fifth Quarter — Fall

ENG 0160 Public Speaking	3
ECO 0201 Economics	3
BUS 0218 Sales Development.....	3
BUS 0220 Marketing.....	3
<i>or</i>	
ISC 0103 Industrial Marketing	12

Sixth Quarter — Winter

<i>Course Title</i>	<i>Credit Hours</i>
BUS 0110 Business Law	3
BUS 0112 Business Finance.....	3
ECO 0202 Economics.....	3
BUS 0217 Taxes.....	4
	14

Seventh Quarter — Spring

BUS 0111 Business Law	3
BUS 0214 Business Management	
<i>or</i>	
ISC 0101 Industrial Management.....	3
BUS 0113 Credit Proc. & Probl	3
BUS 0216 Principles of Superv.....	3
<i>or</i>	
ISC 0201 Foremanship Supervision	12

Eighth Quarter — Summer

BUS 0107 Business Machines.....	3
BUS 0224 Personnel Management	3
Electives.....	6
	12

Ninth Quarter — Fall

Electives 3

*May demonstrate competency.

PERSONNEL MANAGEMENT OPTION: Students wishing to get a concentration in this area should take as electives the following courses: ISC 0102, ISC 0105, ISC 0106, and ECO 0261.

A certificate of completion will be awarded upon successful completion (average of "C" — 2.00 QPR) of 30 credit hours from the requirements listed.

All courses should come from the following list:

Business

Administration

(Technical)

Certificate

Program

REQUIRED	Credit Hours
ECO 0202 Economic Principles	3
BUS 0210 Principles of Accounting	3
BUS 0214 Business Management	3
BUS 0110 Business Law	3
OPTIONAL OR ELECTIVES — 18 HOURS FROM THE FOLLOWING:	
BUS 0216 Principles of Supervision	3
PSY 0201 Business Psychology	3
ECO 0201 Economic Principles	3
ENG 0160 Public Speaking	3
BUS 0217 Taxes	3
BUS 0224 Personnel Management	3
ISC 0105 Industrial Safety	3
ISC 0102 Job Analysis and Evaluation	3
ISC 0106 Work Compensation	3
ECO 0261 Labor Economics	3
BUS 0211 Principles of Accounting	3

First Quarter

<i>Course Title</i>	<i>Credit Hours</i>
ENG 0101 Composition	3
BUS 0101 Typewriting*	3
MAT 0110 Business Math	3
PSY 0101 Personality Dev	3
Electives	3
	15

Second Quarter

ENG 0102 Composition	3
BUS 0102 Typewriting	3
BUS 0107 Bus. Machines	3
BUS 0110 Business Law	3
Electives	6
	18

Third Quarter

ENG 0104 Business Communications	3
BUS 0103 Typewriting	3
BUS 0206 Terminology & Vocabulary	3
EDP Data Processing	3
Electives	6
	18

*May demonstrate competency.

Fourth Quarter

<i>Course Title</i>	<i>Credit Hours</i>
ENG 0160 Public Speaking	3
BUS 0201 Advanced Typewriting	3
BUS 0205 Machine Trans.	2
BUS 0210 Accounting	3
BUS 0218 Sales Development	3
Electives	3
	17

Fifth Quarter

BUS 0208 Stenograph	4
BUS 0213 Secretarial Procedures	4
PSY 0201 Business Psych.	3
Electives	6
	17

Sixth Quarter

BUS 0108 Filing	3
BUS 0215 Office Mgmt.	3
Electives	9
	15

General
Office
Technology
(Day)

Electronics Technology Program

		First Year			Second Year	
				Fourth Quarter		
First Quarter						
<i>Course Title</i>		<i>Credit Hours</i>		<i>Course Title</i>	<i>Credit Hours</i>	
ENG 0101	Composition I	3		ENG 0160	Public Speaking	3
EGR 0101	Engineering Drawing I	3		PHY 0201	General Physics I	4
MAT 0120	Introductory Algebra	5		ELN 0210	Circuit Anal	4
ELC 0101	DC Circuit Anal	6		DFT 0112	Electronic Drawing	2
		17		ELN 0230	Television Systems	6
						19
Second Quarter						
ENG 0102	Composition II	3		Fifth Quarter		
MAT 0121	College Algebra & Trigonometry I	5		PHY 0202	General Physics II	4
ELC 0102	AC Circuit Anal	6		ELN 0227	UHF and Microwave Systems	3
ELN 0105	Control Devices	5		ELN 0245	Elect. Dsgn Proj I	3
		19		ELN 0275	Intro to Date Communications	4
				Elective		3
						17
Third Quarter						
ENG 0105	Tech. Report Writing	3		Sixth Quarter		
MAT 0122	College Algebra & Trigonometry II	5		PHY 0203	General Physics III	4
ELN 0270	Broadcast Comm	5		ELN 0220	Electronics Systems	7
ELN 0225	Transmission and propagation	6		ELN 0246	Elect Dsgn Proj II	3
		19		Elective		3
						17

NOTE: Any person may substitute Math 0131, 0132, 0133 in place of Math 0120, 0121, or 0122.

First Quarter

<i>Course Title</i>	<i>Credit Hours</i>
ENG 0101 Composition	3
BUS 0101 Typewriting*	3
BUS 0104 Shorthand	4
MAT 0110 Business Math	3
PSY 0101 Personality Dev	3
	16

Second Quarter

ENG 0102 Composition	3
BUS 0102 Typewriting	3
BUS 0105 Shorthand	4
BUS 0107 Business Machines	3
BUS 0110 Business Law	3
Elective	3
	19

Third Quarter

ENG 0104 Bus. Communications	3
BUS 0103 Typewriting	3
BUS 0106 Shorthand	4
BUS 0206 Terminology & Vocabulary	3
Elective	3
	16

*May demonstrate competency.

Fourth Quarter

<i>Course Title</i>	<i>Credit Hours</i>
ENG 0160 Public Speaking	3
BUS 0202 Dictate & Transcribe	4
BUS 0205 Machine Trans	2
BUS 0210 Accounting	3
Elective	3
	15

Fifth Quarter

BUS 0203 Dictate & Transcribe	4
BUS 0211 Accounting	3
BUS 0213 Secretarial Procedures	4
PSY 0201 Bus. Psychology	3
Elective	3
	17

Sixth Quarter

BUS 0108 Filing	3
BUS 0204 Dictate & Transcribe	4
BUS 0215 Office Mgmt	3
Electives	7
	17

Executive
Secretarial
Science
(Day)

Associate
Degree
Program
For
Vocational
Instructors

INTRODUCTION:

The program is designed for persons who have developed a skill trade or technical specialty or who have a desire to do so, and would like to teach or pursue a degree. Successful graduates of the program may find employment in the public high schools, and in the community colleges and technical institutes vocational or career programs. It is also designed for those already teaching in such programs who have not had the opportunity to acquire training in educational methods.

The program offers the opportunity to earn an Associate in Applied Science degree allowing credit for previous training, experience, and formal study in the student's area of expertise, supplemented by course work to broaden the student personally and develop professional competence in the techniques of teaching.

PROGRAM:

Credit will be awarded to skilled craftsmen based on educational experience and work experience. Credit will be allowed for no more than two fields of specialization.

Part I:

- A. In the speciality area, credits will be earned by the following criteria:
1. Twenty-four quarter hours credit for full-time trade school, twelve months (1440 hours) in one special skilled area certified by diploma or letter by trade school officials, maximum twenty-four quarter credit hours.
- and/or*
2. One quarter hour credit per sixty hours of full-time trade instruction for programs of less than one year duration. Certified by diploma or letter by trade school officials, maximum eight credit hours.
- B. One quarter hour credit per forty hours of special short course instruction - company sponsored school. Certified by diploma, certificate or letter by company school. Maximum five hours.
- C. Five quarter hours credit for each full year of employment in a teaching situation. Teaching must be the primary responsibility of employment. Maximum ten hours.
- D. Two quarter hours credit for each full year of employment in the specialty occupation qualified to teach. Maximum ten hours.

and/or

Part II:

- A. Credits earned in industrial and/or vocational programs offered at regionally accredited collegiate level institutions.

The maximum number of hours awarded for speciality skills toward an Associate in Applied Science degree is 45 quarter hours.

A minimum of 30 quarter hours credit must be earned through course work at Isothermal Community College. In order to earn an Associate in Applied Science degree at Isothermal Community College, the general education requirements must be met either through transfer credit, challenge examination or formal course work.

A program of study will be prepared for each individual vocational instructor or potential instructor who makes application for the program. The Applied Science Division Chairman will serve as advisor.

Following are minimum requirements for an Associate in Applied Science degree for this curriculum.

Three areas of development and the hours required for each are:

A. Speciality Area (See Page 1).....	45
1. Through work experience and/or informal course work	
2. Through formal instruction toward a specific vocation	
B. Personal Area (Sciences, Humanities).....	27
Minimum:	
English	12
Social Sciences	6
Math	5
Science	4
C. Professional Area (Educational Methods).....	12
EDU 110, 111	12
112, 113	
D. Electives.....	14
	<hr/>
TOTAL.....	98

English

- ENG 0101 Freshman Composition I
- ENG 0102 Freshman Composition II
- ENG 0103 Freshman Composition III
- ENG 0160 Public Speaking

Social Science

Any advisor approved six credit hours of social science.

Mathematics

- MAT 0111 Technical Math
- or
- MAT 0101 Foundations of Mathematics
- or
- MAT 0103 College Algebra and Trigonometry

Science

Any advisor approved four credit hours of physical or biological science.

Education

- EDU 0110 Occupational Analysis & Course Development
- EDU 0111 Instructional Methods
- EDU 0112 Shop Organization & Planning
- EDU 0113 Shop Safety

Electives

Any advisor approved fourteen hours of electives.

First Quarter

<i>Course Title</i>	<i>Credit Hours</i>
EDU 0101 Intro. Child Educ.	3
PSY 0102 Child Development	3
BIO 0101 Biology	4
ENG 0101 Composition	3
HIS 0101 Western Civilization	3
PER Physical Education	1
	17

Second Quarter

SOC 0101 Family/Community	3
PSY 0103 Child Development	3
BIO 0102 Biology	4
ENG 0102 Composition II	3
HIS 0102 Western Civilization	3
PER Physical Education	1
	17

Third Quarter

EDU 0102 Exceptional Child	3
EDU 0204 A-V Materials/Equip.	3
BIO 0103 Biology	4
ENG 0103 Composition III	3
HIS 0103 Western Civilization	3
PER Physical Education	1
Electives	3
	20

Fourth Quarter

<i>Course Title</i>	<i>Credit Hours</i>
EDU 0103 Learning Activities I	1
EDU 0201 Language Arts	3
EDU 0210 Seminar	0
EDU 0211 Practicum	4
Electives	11
	19

Fifth Quarter

EDU 0104 Learning Activities II	1
EDU 0202 Social Sciences	3
EDU 0212 Seminar	0
EDU 0213 Practicum	4
HEA 0201 Child Health/Safety	3
Electives	8
	19

Sixth Quarter

EDU 0105 Learning Activities III	1
EDU 0203 Life-Applied Science	3
EDU 0214 Seminar	0
EDU 0215 Practicum	4
PER 0240 Child Physical Ed.	3
Electives	6
	17

Early Childhood Specialist (Day)

Industrial Supervision And Management (Day)

First Quarter	<i>Credit Hours</i>
<i>Course Title</i>	
ENG 0101 Composition	3
MAT 0111 Technical Math	5
ISC 0101 Principles of Industrial Management	
<i>or</i>	
BUS 0214 Business Management	3
ISC Production Planning	3
Electives	3
	17

Second Quarter	
ENG 0102 Composition	3
BUS 0110 Business Law	3
BUS 0112 Business Finance	3
ISC 0105 Industrial Safety	3
ISC 0202 Quality Control I	3
Electives	3
	18

Third Quarter	
ENG 0104 Business Comm	3
ISC 0103 Industrial Marketing	
<i>or</i>	
BUS 0220 Marketing	3
ISC 0201 Foremanship Superv.	
<i>or</i>	
BUS 0216 Principles of Superv.	3
ISC 0212 Quality Control II	3
Electives	6
	18

Fourth Quarter	<i>Credit Hours</i>
<i>Course Title</i>	
ISC 203 Plant Layout	3
ECO 201 Economics	3
ENG 0160 Public Speaking	3
ISC 0104 Work Measurement	3
ISC 0205 Value Analysis	3
Electives	4
	19

Fifth Quarter	
ECO 0202 Economics	3
BUS 0224 Personnel Management ...	3
ISC 0204 Management Problems	3
ISC 0102 Job Analysis & Eval	3
BUS 0201 Business Psychology	3
Electives	3
	18

Sixth Quarter	
ECO 0261 Economics	3
ISC 0106 Work Compensation	3
Electives	12
	18

A certificate of completion will be awarded upon successful completion (average of "C" — 2.00 QPR) of 30 credit hours from the requirements listed.

REQUIREMENTS: 21 hours of ISC courses
9 hours of electives from any courses listed

All courses should come from the following list:

ISC Courses

ISC 0101 or BUS 0214
ISC 0105
ISC 0202
ISC 0103 or BUS 0220
ISC 0212
ISC 0104
ISC 0205
ISC 0102
ISC 0106
ISC 0201
ISC 0203
ISC 0204
ISC 0206

Business Courses

BUS 0110
BUS 0224
BUS 0217
PSY 0201
ENG 0160
ECO 0201
ECO 0202
ECO 0261

Industrial
Supervision
and
Management
Certificate
Program

Industrial Supervision and Management (Night)

First Quarter

<i>Course Title</i>	<i>Credit Hours</i>
ENG 0101 Composition	3
MAT 0111 Technical Math	5
ISC 0101 Prin. of Indus. Mgmt.	
<i>or</i>	
BUS 0214 Business Management	3
Elective (Physical Education)	1
	12

Second Quarter

ENG 0102 Composition	3
PSY 0201 Business Psychology	3
ISC 0105 Industrial Safety	3
ISC 0202 Quality Control I	3
	12

Third Quarter

ENG 0104 Bus. Communications	3
ECO 0261 Labor Economics	3
ISC 0103 Industrial Marketing	
<i>or</i>	
BUS 0220 Marketing	3
ISC 0212 Quality Control II	3
	12

Fourth Quarter

ISC 0104 Work Measurement	3
ISC 0205 Value Analysis	3
Electives	6
	12

Fifth Quarter

ENG 0160 Public Speaking	3
ISC 0102 Job Analysis & Eval	3
ECO 0201 Economics	3
Electives	3
	12

Sixth Quarter

<i>Course Title</i>	<i>Credit Hours</i>
ISC 0106 Work Compensation	3
ECO 0202 Economics	3
BUS 0112 Business Finance	3
BUS 0110 Business Law	3
	12

Seventh Quarter

ISC 0201 Foremanship Superv.	
<i>or</i>	
BUS 0216 Princip. of Superv.	3
BUS 0224 Personnel Management ...	3
Electives	6
	12

Eighth Quarter

ISC 0203 Plant Layout	3
Electives	6
Electives	3
	12

Ninth Quarter

ISC 0204 Management Problems	3
ISC 0206 Production Planning	3
Electives	6
	12

First Quarter

<i>Course Title</i>	<i>Credit Hours</i>
ENG 0101 Composition	3
PSC 0101 Intro. to Law Enforcement	3
Electives	3
	9

Second Quarter

ENG 0102 Composition II	3
PSC 0202 Criminal Law	3
Electives	3
	9

Third Quarter

ENG 0104 Bus. Communications	3
PSC 0206 Criminal Procedure	3
Electives	3
	9

Fourth Quarter

PSC 0204 Criminal Investigation	3
ENG 0160 Public Speaking	3
Electives	3
	9

Fifth Quarter

PSC 0201 Traffic Planning and Management	3
POL 0260 Government	3
Electives	3
	9

Sixth Quarter

PSC 0102 Police Organization & Administration	3
POL 0261 Government	3
Electives	3
	9

Seventh Quarter

<i>Course Title</i>	<i>Credit Hours</i>
PSC 0203 Criminal Evidence	3
POL 0262 Government	3
Electives	3
	9

Eighth Quarter

MAT 0111 Technical Math	5
PSY 0260 General Psychology	3
Electives	3
	11

Ninth Quarter

CHM 0162 Chemistry	4
PSY 0262 Applied Psychology	3
	7

Tenth Quarter

PSC 0205 Intro. to Criminalistics	3
SOC 0160 Sociology	3
Electives	3
	9

Eleventh Quarter

PSC 0103 Police Role in Crime And Delinquency	3
PSY 0260 Developmental Psy	3
Electives	3
	9

Twelfth Quarter

Electives	9
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Police Science (Night)

Auto Body
Repair
(Day-Diploma)

	<i>Course Titles</i>	<i>Class Hrs./ Week</i>	<i>Shop Hrs./ Week</i>	<i>Credit Hours</i>
First Quarter				
AUB 1101	Auto Body Repair I	5	17	11
WLD 1111	Auto Welding I	0	3	1
MAT 1101	Math Fundamentals	5	0	5
		10	20	17
Second Quarter				
AUB 1102	Auto Body Repair II	5	17	11
ENG 1100	Reading	2	0	2
ENG 1101	Communications	3	0	3
WLD 1112	Auto Welding II	0	3	1
		10	20	17
Third Quarter				
AUG 1103	Auto Body Repair III	5	19	11
BUS 1100	Business Operations	3	0	3
PSY 1100	Human Relations	3	0	3
		11	19	17
Fourth Quarter				
AUB 1104	Auto Body Repair IV	5	20	12
PHY 1100	Applied Science	3	2	4
		8	22	16
First Quarter				
AUB 1105	Auto Body Repair V	2	13	6
Second Quarter				
AUB 1106	Auto Body Repair VI	2	13	6
Third Quarter				
AUB 1107	Auto Body Repair VII	2	13	6
Fourth Quarter				
AUB 1108	Auto Body Repair VIII	2	13	6

Auto Body
Repair
Night-Certificate)

	<i>Course Title</i>	<i>Class Hours</i>	<i>Lab Hours</i>	<i>Credit Hours</i>
First Quarter				
AUM 1101	Auto Mechanics I	5	17	11
MAT 1101	Fundamentals of Mathematics	5	0	5
WLD 1111	Auto Welding II	0	3	1
		10	20	17
Second Quarter				
AUM 1102	Auto Mechanics II	10	15	15
ENG 1101	Communication Skills	3	0	3
ENG 1100	Reading Improvement	2	0	2
		15	15	20
Third Quarter				
AUM 1103	Auto Mechanics III	8	16	13
PSY 1100	Human Relations	3	0	3
BUS 1100	Small Business Operations	3	0	3
		14	16	19
Fourth Quarter				
AUM 1104	Auto Mechanics IV	5	20	12
PHY 1100	Applied Science	3	2	4
		8	22	16
First Quarter				
AUM 1105	Auto Mechanics V	2	13	6
Second Quarter				
AUM 1106	Auto Mechanics VI	2	13	6
Third Quarter				
AUM 1107	Auto Mechanics VII	2	13	6
Fourth Quarter				
AUM 1108	Auto Mechanics VIII	2	13	6

Automotive
Mechanics
(Day-Diploma)

Auto
Mechanics
(Night-Certificate)

Child Care
Worker
(Day-Certificate)

First Quarter

<i>Course Title</i>	<i>Credit Hours</i>
EDU 1101 Intro. Child Educ.	3
EDU 1103 Learning Activities I.....	1
EDU 1201 Language Arts	3
EDU 1210 Seminar	0
EDU 1211 Practicum.....	4
PSY 1102 Child Development	3
PER Physical Education	1
Electives.....	3
	18

Second Quarter

EDU 1104 Learning Activities II.....	1
EDU 1202 Social Sciences.....	3
EDU 1212 Seminar	0
EDU 1213 Practicum.....	4
SOC 1101 Family/Community	3
PSY 1103 Child Development	3
HEA 1201 Child Health/Safety	3
PER Physical Education	1
	18

Third Quarter

<i>Course Title</i>	<i>Credit Hours</i>
EDU 1102 Exceptional Child.....	3
EDU 1105 Learning Activities III....	1
EDU 1203 Life-Applied Science	3
EDU 1204 A-V Materials/Equip.....	3
EDU 1214 Seminar	0
EDU 1215 Practicum.....	4
PER 1240 Child Phys. Educ.	3
PER Physical Education	1
	18

	<i>Course Title</i>	<i>Class Hours</i>	<i>Lab Hours</i>	<i>Credit Hours</i>
FIRST QUARTER				
ELC 1101	AC-DC Current	10	12	14
MAT 1103	Electrical Math	5	0	5
DFT 1111	Blueprint Reading: Elect.	0	3	1
		15	15	20
SECOND QUARTER				
MAT 1104	Electrical Math	5	0	5
ENG 1100	Reading Improvement	2	0	2
ELC 1112	Industrial Electronics	3	5	5
ELC 1102	Residential Wiring	5	10	8
		15	15	20
THIRD QUARTER				
ELC 1103	AC & DC Machines & Controls	8	13	12
DFT 1112	Blueprint Reading: Elect.	0	3	1
PSY 1100	Human Relations	3	0	3
BUS 1100	Small Business Operations	3	0	3
		14	16	19
FOURTH QUARTER				
ELC 1104	Industrial Wiring	5	7	7
PHY 1100	Physical Science	3	2	4
ENG 1101	Communications Skills	3	0	3
ELC 1114	Industrial Electronics	4	6	6
		15	15	20

Electrical
Installation
and Maintenance
(Day-Diploma)

Electrical
Installation
and Maintenance
(Night-Certificate)

	<i>Course Titles</i>	<i>Class Hours</i>	<i>Lab Hours</i>	<i>Credit Hours</i>
FIRST QUARTER				
ELC 1105	Basic Wiring	4	11	6
SECOND QUARTER				
ELC 1106	Residential Wiring I	4	11	6
THIRD QUARTER				
ELC 1107	Residential Wiring II	4	11	6
FOURTH QUARTER				
ELC 1108	Industrial Wiring	4	11	6

	<i>Course Title</i>	<i>Class Hours</i>	<i>Lab Hours</i>	<i>Credit Hours</i>
FIRST QUARTER				
ELN 1101	Fundamentals of Electronics	10	15	15
MAT 1103	Electrical Math	5	0	5
		15	15	20
SECOND QUARTER				
MAT 1104	Electrical Math	5	0	5
ENG 1100	Reading Improvement	2	0	2
ELN 1102	Tubes/Transistors	8	15	13
		15	15	20
THIRD QUARTER				
ELN 1103	Radio Receiver Servicing	5	6	7
ELN 1113	Amplifier Systems	5	8	8
PSY 1100	Human Relations	3	0	3
BUS 1100	Small Business Operations	3	0	3
		16	14	21
FOURTH QUARTER				
ELN 1104	T. V. Receiver Servicing	5	17	11
PHY 1100	Physical Science	3	2	4
ENG 1101	Communications Skills	3	0	3
		11	19	18

Electronic
Servicing
(Day-Diploma)

Practical Nurse (Day-Diploma)

	<i>Course Title</i>	<i>Class Hours</i>	<i>Clinical Hours</i>	<i>Credit Hours</i>
FIRST QUARTER				
PNE 1101	Nursing Fundamentals	9	8	13
PNE 1102	Anatomy/Physiology	5	0	5
PNE 1103	Nutrition	2	0	2
MAT 1100	Basic Math	3	0	3
PSY 1101	Nursing Human Relations	3	0	3
ENG 1101	Communications	3	0	3
		25	8	29
SECOND QUARTER				
PNE 1104	Pediatrics	6	0	6
PNE 1113	Med-Surg I	3	3	4
PNE 1116	Pharmacology I	6	0	6
PNE 1121	Clinical	0	14	5
		15	17	21
THIRD QUARTER				
PNE 1105	Maternity Nursing	4	0	4
PNE 1114	Med-Surg II	2	2	3
PNE 1117	Pharmacology II	4	0	4
PNE 1122	Clinical	0	21	7
		10	23	18
FOURTH QUARTER				
PNE 1111	Voc Adjustment I	2	0	2
PNE 1115	Med-Surg III	6	4	7
PNE 1123	Clinical	0	21	7
		8	25	16

	<i>Course Title</i>	<i>Class Hours</i>	<i>Lab Hours</i>	<i>Credit Hours</i>
FIRST QUARTER				
DFT 1112	Blueprints: Electrical	0	3	1
ELC 1100	Applied Electricity	3	12	7
ENG 1101	Communication Skills	3	0	3
MAT 1103	Electrical Math	5	0	5
WLD 1100	Basic Gas Welding	1	3	2
		12	18	18
SECOND QUARTER				
AHR 1101	Principles of Air Conditioning and Refrigeration	3	9	6
DFT 1101	Blueprints: Mechanical	0	3	1
ELC 1112	Industrial Electronics	3	6	5
ISC 0105	Industrial Safety	3	0	3
MAT 1104	Electrical Math	3	0	3
		12	18	18
THIRD QUARTER				
AHR 1126	All Year Comfort System	3	6	5
IDM 1121	Electric Motor & Generator Repair	2	4	4
IDM 1122	Industrial System Schematics	3	0	3
IDM 1123	Plumbing and Pipe Fitting	2	3	3
WLD 1120	Basic Arc Welding	1	6	3
		11	19	18
FOURTH QUARTER				
ELC 1115	Industrial Controls	3	6	5
IDM 1124	Duct Construction & Maintenance	2	6	4
IDM 1125	Pump Repair and Maintenance	2	6	4
IDM 1126	Mechanisms	2	3	3
		9	21	16

**Industrial
Mechanics
(Day-Diploma)**

Industrial
Mechanics
Certificate
Program
(Night)

	<i>Course Titles</i>	<i>Class Hours</i>	<i>Lab Hours</i>	<i>Credit Hours</i>
FIRST QUARTER				
IDM 1101	Industrial Mechanics I	3	12	7
SECOND QUARTER				
IDM 1102	Industrial Mechanics II	3	12	7
THIRD QUARTER				
IDM 1103	Industrial Mechanics III	3	12	7
FOURTH QUARTER				
IDM 1104	Industrial Mechanics IV	3	12	7

Welding
(Day-Diploma)

FIRST QUARTER				
WLD 1101	Welding I	5	14	10
MAT 1101	Math Fundamentals	5	0	5
DFT 1101	Blueprints: Mech.	0	3	1
AUM 1111	Mechanics for Welding	0	3	1
		10	20	17
SECOND QUARTER				
WLD 1102	Welding II	5	14	10
MAT 1102	Measurement	3	0	3
ENG 1100	Reading Improvement	2	0	2
ENG 1101	Communication Skills	3	0	3
DFT 1102	Blueprints: Welding	0	3	1
		13	17	19
THIRD QUARTER				
WLD 1103	Welding III	5	16	10
DFT 1103	Pattern Sketching	0	3	1
PSY 1100	Human Relations	3	0	3
BUS 1100	Small Business Operations	3	0	3
		11	19	17
FOURTH QUARTER				
WLD 1104	Welding IV	5	20	12
PHY 1100	Applied Science	3	2	4
		8	22	16
				59

	<i>Course Titles</i>	<i>Class Hours</i>	<i>Lab Hours</i>	<i>Credit Hours</i>
FIRST QUARTER				
WLD 1105	Welding V	2	13	6
SECOND QUARTER				
WLD 1106	Welding VI	2	13	6
THIRD QUARTER				
WLD 1107	Welding VII	2	13	6
FOURTH QUARTER				
WLD 1108	Welding VIII	2	13	6

Welding (Night-Certificate)

Course Descriptions

The courses listed below represent the current course offerings in the College Transfer, Technical, and Vocational programs.

The course listing is alphabetical.

The courses are numbered as follows:

1. All are 4 digit
2. Those beginning with "O" are designed for the college transfer and technical students
3. Those beginning with "O" and designated T are for technical students only
4. Those beginning with "1" are designed for vocational students

Where possible we have tried to indicate the quarter(s) in which an individual course is normally offered. This follows the course description with the following abbreviations: Fall-F, Winter-W, Spring-SP, Summer-SU.

After the course title, we have indicated the number of hours involved for each course. These three numbers should be interpreted as follows:

The first number represents the number of lecture hours per week

The second number represents the number of lab, shop, clinical, or practicum hours per week

The third number represents the number of credits assigned to the course.

- AHR 1126—All Year Comfort Systems.....3—6—5
 Auxiliary equipment used in conjunction with refrigeration systems to provide both heating and cooling for all year comfort will be studied. Included will be oil fired systems, water circulating systems, and electric-resistance systems. Installation of heat pumps will be studied along with servicing techniques. Reversing valves, special types of thermostatic expansion valves, systems of de-icing coils, and electric wiring and controls are included.
- AHR 1101—Principles of Air Conditioning and Refrigeration.....3—9—6
 This is an introduction to heating, air conditioning and refrigeration principles. This course will include basic laws and terminology of refrigeration, air conditioning and heating. It will also include the characteristics and comparison of the various refrigerants, valves, fittings and basic controls. Emphasis will be placed on ventilation systems and temperature and humidity control.
- ANT 0260—Introduction to General Anthropology.....3—0—3
 A survey of the major fields and basic principles in the comparative study of mankind, human development, fossil evidence and cultural origins. (F, SU)
- ANT 0261—Introduction to Cultural Anthropology.....3—0—3
 The evolution of culture is emphasized in the areas of cultural innovations, language, mores, customs, and anthroarchaeological techniques. (W, SU)
- ANT 0262—Comparative Cultures and World Development.....3—0—3
 Comparison of selected primitive, pre-literate or non-industrial cultures from different regions of the world. (SP)
- ART 0160—Survey of Art.....3—0—3
 Introduction to principles of art, including media, style, technique. Emphasis on Egyptian, Greek, Roman, Byzantine, Medieval, Renaissance, Baroque, Neo-Classical, Romantic, Impressionistic and Modern Art. (W)

Air Conditioning

Anthropology

Art

Auto Body Repair

- AUB 1101—Auto Body I.....5—17—11
Basic principles of automobile construction, design, and manufacturing. A thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas. (F)
- AUB 1102—Auto Body II.....5—17—11
A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders. Metal working and painting. (W)
- AUB 1103—Auto Body III.....5—19—11
Development of the skill to shrink stretched metal, soldering and leading, and preparation of the metal for painting. Straightening of doors, hoods, and deck lids; fitting and aligning. Painting fenders and panels, spot repairs, and complete vehicle painting; the use and application of power tools. The student gains a thorough knowledge of the engine cooling system and repairs and replaces damaged cooling system components. Tests are made to insure normal engine cooling operation. (SP)
- AUB 1104—Auto Body IV.....5—20—12
General introduction and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of the frames and front wheel alignment. The student applies all phases of training. Repair order writing, parts purchasing, estimates of damage, and developing the final settlement with adjuster. (SU)

- AUB 1105—Auto Body V 2—13—6
 Basic principles of automobile construction, design, and manufacturing. A thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas. (F)
- AUB 1106—Auto Body VI 2—13—6
 A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders. Metal working and painting. (W)
- AUB 1107—Auto Body VII 2—13—6
 Development of the skill to shrink stretched metal, soldering and leading, and preparation of the metal for painting. Straightening of doors, hoods, and deck lids; fitting and aligning. Painting fenders and panels, spot repairs, and complete vehicle painting; the use and application of power tools. The student gains a thorough knowledge of the engine cooling system and repairs and replaces damaged cooling system components. Tests are made to insure normal engine cooling operation. (SP)
- AUB 1108—Auto Body VIII 2—13—6
 General introduction and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of the frames and front wheel alignment. The student applies all phases of training. Repair order writing, parts purchasing, estimates of damage, and developing the final settlement with adjuster. (SU)

Auto Body Repair

Automotive Mechanics

- AUM 1101—Automotive Mechanics I.....5—17—11
Tune up - Ignition, Fuel and Electrical: This course includes the study of fuel, ignition, and electrical systems, the purpose and operating principles of the various components involved, procedures of disassembly, service, assembly and adjustment of components and their relationship one with the other. (F)
- AUM 1102—Automotive Mechanics II.....10—15—15
Powertrains: The powertrain course deals with the study of the many components that go to make up the links between the engine and the wheels. These include the clutch, transmission, drive shaft, universal joints, differential and rear axle. (W)
- AUM 1103—Automotive Mechanics III.....8—16—13
Brakes and Wheel Alignment: The brake and wheel alignment course introduces the student to principles and problems involved with the various components and assemblies of the automobile chassis. These include steering, wheel balance, wheel alignment and brakes. (SP)
- AUM 1104—Automotive Mechanics IV.....5—20—12
Applied Automotive Service: This course is designed to familiarize the student with the basic principles of the internal combustion engine as well as its relation to all other components of the automobile. This phase of training provides an opportunity for the student to utilize the skills and knowledge he has gained during his participation in the other phases of training. Prerequisite: AUM 1101 or 1102 or 1103, or appropriate instructor approved experience. (SU)

- AUM 1105—Automotive Mechanics V2—13—6
 Tune up - Ignition, Fuel and Electrical: This course includes the study of fuel, ignition, and electrical systems, the purpose and operating principles of the various components involved, procedures of disassembly, service, assembly and adjustment of components and their relationship one with the other. (F)
- AUM 1106—Automotive Mechanics IV2—13—6
 Powertrains: The powertrain course deals with the study of the many components that go to make up the links between the engine and the wheels. These include the clutch, transmission drive shaft, universal joints, differential and rear axle. (W)
- AUM 1107—Automotive Mechanics VII2—13—6
 Brakes and Wheel Alignment: The brake and wheel alignment course introduces the student to principles and problems involved with the various components and assemblies of the automobile chassis. These include steering, wheel balance, wheel alignment and brakes. (SP)
- AUM 1108—Automotive Mechanics VIII2—13—6
 Applied Automotive Service: This course is designed to familiarize the student with the basic principles of the internal combustion engine as well as its relation to all other components of the automobile. This phase of training provides an opportunity for the student to utilize the skills and knowledge he has gained during his participation in the other phases of training. Prerequisite: 1105 or 1106 or 1107, or appropriate instructor approved experience. (SU)

Automotive Mechanics

Biology

- BIO 0101—Principles of Biology.....3—3—4
Principles, problems and basic similarities of all living organisms with emphasis on the chemistry of living organisms, metabolism, cytology, and genetics. Three laboratory hours per week. (F, W, SU)
- BIO 0102—Principles of Biology.....3—3—4
Principles of reproduction, development, organic maintenance, organization and integration, and behavior in plants and animals. A study of the principles of evolution and the concept of species. Three laboratory hours per week. (W, SP, SU)
- BIO 0103—Principles of Biology.....3—3—4
A systematic study of living organisms with emphasis on the vertebrates and Angiosperms. The principles of ecology and taxonomy will be included as they relate to the study of living organisms. Three laboratory hours per week. (SP, SU)
- BIO 0160—Human Ecology.....3—0—3
A study of man in his environment with special emphasis on pollution and the population explosion in terms of man's future. The causes and cures of major aspects of human ecology will be covered with special attention given to ecological principles. (W)
- BIO 0260 and 0261—General Zoology.....3—3—4
These courses survey the many topics concerned with the biology of invertebrates and vertebrates. More specifically this includes the classification and outstanding common characteristics of the major phyla. The anatomy and physiology of major groups and the "major" life processes are considered. Such includes locomotion, growth, development, nutrition, excretion, circulation, reproduction and nervous coordination. The taxonomic and anatomical aspects are integrated with an examination of the theoretical concepts relating to phylogeny. Three laboratory hours per week. Prerequisite: BIO 0101, 0102, 0103. (F, W)
- BIO 0262—Plant Identification.....3—3—4
The identification and related ecology of vascular plants with special emphasis on the local flowering plants. Three laboratory hours a week. Prerequisite: BIO 0101, 0102, 0103, or the equivalent. (SP)

- BUS 0101—Beginning Typewriting.....2—3—3
 Students who have had no previous typewriting experience or those students who cannot prove competency on a typewriting placement test should take this course. This course is an introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence and tabulation. The student should, at the end of the course, be able to type 30 words per minute for three minutes with no more than five errors. (F)
- BUS 0102—Typewriting.....2—3—3
 Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, correspondence, manuscripts, and business forms. The student should, at the end of the course, be able to type 40 words per minute for five minutes with no more than five errors. Prerequisite: BUS 0101 or proof of competency on a typewriting placement test. (W)
- BUS 0103—Typewriting.....2—3—3
 Instruction emphasizes production typing problems and speed building. Attention is given to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscripts, business letters, memos, telegrams, and legal documents. Fundamental skills are developed on the duplicating machines. The student should, at the end of this course, be able to type 50 words per minute for five minutes with no more than five errors. Prerequisite: BUS 0102. (SP)
- BUS 0104—Shorthand.....3—2—4
 Principles of Gregg shorthand with emphasis on phonetics, penmanship, word families, brief forms, and phrases. Designed for students who have had no previous shorthand or those who cannot prove competency in shorthand placement test. (F)
- BUS 0105—Shorthand.....3—2—4
 A review of fundamental principles, followed by assignments which stress speed, accuracy, fluency, and vocabulary. Introduction to transcription. Prerequisite: BUS 0104 or proof of competency on shorthand placement test. (W)
- BUS 0106—Shorthand.....3—2—4
 Further study of shorthand theory, acquisition of ability to take rapid dictation and transcribe accurately. Introduction to office style dictation. Prerequisite: BUS 0105. (SP)

Business

Business

- BUS 0107—Business Machines (T).....2—2—3
 A general survey of the business and office machines with training in techniques, processes, operation and application of the ten-key adding machines, electronic calculators, and duplicating machines. Prerequisite: MAT 0110. (W)
- BUS 0108—Filing (T).....3—0—3
 Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex, and Dewey Decimal Filing. (SP)
- BUS 0110—Business Law.....3—0—3
 A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies. (W)
- BUS 0111—Business Law.....3—0—3
 Includes the study of laws pertaining to bailments, sales, riskbearing, wills, estates, and property rights. Prerequisite: BUS 0110 recommended. (SP)
- BUS 0112—Business Finance.....3—0—3
 A study of the monetary and credit systems and policies in relation to the financing of sole proprietorships, corporations, and governments and a detailed study of short-term, long-term, and consumer financing. (W)
- BUS 0113—Credit Procedures and Problems.....3—0—3
 Principles and practices in the extension of credit, collection procedures, and laws pertaining to credit extension and collection.
- BUS 0201—Advanced Typewriting.....2—3—3
 Emphasis is placed on the development of individual production rates. From the knowledge the student has previously acquired in typewriting, she learns to set up problems using her own judgment. These problems include letter forms, methods of duplication, statistical tabulation, manuscripts, job applications, special reports for executives, business forms, and legal documents. The student should, at the end of this course, be able to type 60 words per minute for five minutes with no more than five errors. Prerequisite: BUS 0103. (F, SP)
- BUS 0202—Dictation and Transcription.....3—2—4
 Develops the skills of taking dictation at the typewriter of materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 90 words per minutes required for five minutes on new material. Prerequisite: BUS 0106. (F)

- BUS 0203—Dictation and Transcription.....3—2—4
 Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirement of business and professional offices. A minimum dictation rate of 100 words per minute is required for five minutes on new material. Prerequisite: BUS 0202. (W)
- BUS 0204—Dictation and Transcription.....3—2—4
 Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 110 words per minute required for five minutes on new material. Prerequisite: BUS 0203. (SP)
- BUS 0205—Machine Transcription (T).....1—2—2
 A study and practice course in the use of transcribing machines in business dictation with emphasis on proficiency in word usage, correct grammar, and letter styles. Prerequisite: BUS 0102. (F)
- BUS 0206—Terminology and Vocabulary (T).....3—0—3
 Develops an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices. (SP)
- BUS 0208—Stenoscript (T).....3—2—4
 A course offering the theory and practice for ABC shorthand. Emphasis on speed in taking dictation as well as accuracy in transcription. Minimum dictation rate of 80 words a minute required. (W)
- BUS 0210—Principles of Accounting.....3—0—3
 Principles, techniques, and tools of accounting for understanding the mechanics of accounting collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises; includes practical application of principles learned. (F, SU)
- BUS 0211—Principles of Accounting.....3—0—3
 Further study of accounting principles, techniques, and tools of accounting including a study of payrolls, voucher system, depreciation, and partnership; includes practical application of principles learned. Prerequisite: BUS 0210. (W, SU)
- BUS 0212—Principles of Accounting.....3—0—3
 Partnership and corporation accounting with emphasis on the recording, summarizing and interpreting of data for management control rather than on bookkeeping details. Accounting services shown as they contribute to the recognition and solution of management problems. Prerequisite: BUS 0211. (SP, SU)

Business

Business

- BUS 0213—Secretarial Procedures 3—2—4
Designed to acquaint the student with the responsibilities encountered by a secretary during the work day, including: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing supplies, office organization, and insurance claims. Prerequisite: BUS 0102. (W)
- BUS 0214—Business Management 3—0—3
Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing, and financing. Clarification of the decision-making function versus the operating function. Role of management in business, qualifications and requirements. (SP)
- BUS 0215—Office Management 3—0—3
Presents the fundamental principles of office management with emphasis on the role of office management, including its functions, office automation, planning, controlling, organizing, and actuating office problems. (SP)
- BUS 0216—Principles of Supervision (T) 3—0—3
Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates with emphasis on securing an effective work force and the role of the supervisor. Stress placed on methods of supervision. (SP)
- BUS 0217—Taxes 3—2—4
Application of federal taxes to individuals and various business and business conditions. (F)
- BUS 0218—Sales Development 3—0—3
A study of retail, wholesale and specialty selling with emphasis placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required. (F)
- BUS 0220—Marketing 3—0—3
A general survey of the field of marketing, with a detailed study of the function, policies, and institutions involved in the marketing process. Emphasis on marketing management. (F)
- BUS 0221—Advertising 3—0—3
The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals, product and market research, selection of media, means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media. (W)

- BUS 0224—Personnel Management.....3—0—3
Principles of organization and management of personnel, procurement, placement, training, performance and checking, supervision, renumeration, labor relations, fringe benefits and security. (W)
- BUS 0261—Wholesaling.....3—0—3
The development of wholesaling and present day trends in the United States; a study of the function of wholesaling.
- BUS 0262—Retailing.....3—0—3
A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation and managerial problems resulting from current economic and social trends.
- BUS 0263—Business Insurance.....3—0—3
A presentation of the basic principles of risk insurance and their application including a survey of the various types of insurance.
- BUS 0264—Office Application.....1—5—3
During the sixth quarter only, students are assigned to work in a business, technical or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned. Prerequisites: BUS 0213, BUS 0107. (SP)
- BUS 1100—Small Business Operations.....3—0—3
An introduction to the business world, problems of small business operations, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. (SP)
- CAR 1011, 1012—Carpentry.....2—4—3
A brief history of carpentry and present trends of the construction industry. The course will involve operation, care, and safe use of carpenters handtools and powertools in cutting, shaping and joining construction materials used by the carpenter. Major topics of study will include theoretical and practical applications involving: materials and methods of construction, building layout, preparation of site, footings and foundation wall construction including form construction and erection.

Business

Carpentry

Chemistry

- CHM 0101—General Chemistry.....3—3—4
An intensive treatment of basic principles with emphasis upon atomic and molecular theory. Special attention is given to quantitative topics. Three laboratory hours per week. (F)
- CHM 0102—General Chemistry.....3—3—4
An intensive treatment of basic principles with emphasis upon solutions, chemical equilibrium, and oxidation and reduction reactions. Three laboratory hours per week. Prerequisite: CHM 0101. (W)
- CHM 0103—General Chemistry.....3—3—4
A continuation of general chemistry with major emphasis upon stoichiometric chemistry. Laboratory practice in separation and identification of the more common cations and anions. Three laboratory hours per week. Prerequisite: CHM 0101, 0102. (SP)
- CHM 0160—General Chemistry for the Health Sciences.....3—3—4
This is a brief presentation of the basic principles of inorganic chemistry. Emphasis will be on application of these principles to nursing and related fields. Topics covered will include the following: systems of measurement, structure of matter, chemical bonding, stoichiometry, reactions, solutions, and chemical equilibrium. (SU)
- CHM 0161—General Chemistry for the Health Sciences.....3—3—4
Basic organic and physiological chemistry as applied to nursing and related fields will be presented. Topics to be covered are the following: nomenclature, types of organic compounds, types of reactions, organic preparations and purifications, metabolism, body fluids, and the chemistry of body functions. Three laboratory hours per week. Prerequisite: CHM 0160. (SU)
- CHM 0162—Introduction to Chemistry.....3—3—4
Study of the physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations; weights and measurements; theory of metals; acids, bases, salts, solvents, solutions, and emulsions. Introduction to organic chemistry is included.

Data

Processing

- EDP 0101—Introduction to Data Processing Systems.....3—0—3
Fundamental concepts and operational principles of data processing systems as an aid in developing a basic knowledge of computers. Prerequisite to the detail study of particular computer problems and all programming courses. (SP)

DFT 1101—Blueprints: Mech.....	0—3—1
Interpreting and reading shop drawings and sketches. What to expect in a drawing: lines, views, dimensions, tolerances, symbols, and notes. (F)	
DFT 1102—Blueprints: Welding.....	0—3—1
Understanding drawings on which welding is directed. Exercise in reading welding symbols, abbreviations, notes and specifications. Estimating job cost including materials, labor, and overhead expense. (W)	
DFT 1103—Pattern/Sketching.....	0—3—1
Study of sheet metal layout techniques; sketching and modeling; pipe and angle layouts; pattern and template applications; and jigs and fixtures applications. (SP)	
DFT 1111—Blueprints: Building.....	0—3—1
Study and exercise in reading and interpreting drawings and specifications used in the building trades. Applications of sketching to construction detail and to deviations from existing specifications. (F)	
DFT 1112—Blueprints: Electrical.....	0—3—1
Reading and interpreting drawings, diagrams, and schematics applicable to all electrical installations. Sketching as an aid in installation and maintenance including application of symbols, notes and applicable codes. Estimating job cost including materials, labor, and overhead. (SP)	

Drafting

ECO 0201—Economic Principles.....	3—0—3
An introduction to economic principles, problems, and policies, the nature of economic concepts, the principles and problems involved in national incomes, employment and prices, and aggregate demand. (F)	
ECO 0202—Economic Principles.....	3—0—3
A continuation of Economics 0201 with emphasis on the market and price system, the allocation of resources, business cycles, monetary and fiscal policy. (W)	
ECO 0203—Economic Principles.....	3—0—3
A continuation of Economics 0202 with emphasis on a study of the international economy and perspectives on economic change and comparative systems. (SP)	
ECO 0260—Consumer Economics.....	3—0—3
A study of personal financial problems in such areas as housing, budgeting, loans, banking, taxes, credit and insurance.	
ECO 0261—Labor Economics and Labor Relations.....	3—0—3
Emphasis is placed on the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control, and the factors of income and economic security.	

Economics

Education

- EDU 0101/1101—Introduction Child Education.....3—0—3
An introduction to the philosophy, history, nature, and aims of Early Childhood Education. Attention will be given to philosophical foundation, cultural differences, routine activities, records, and parent-teacher relationships. (F)
- EDU 0102/1102—Exceptional Child.....3—0—3
The study of children with developmental variations needing modification in various areas of education. Special emphasis is given to the mental, emotional, and physical development of the child. (SP)
- EDU 0103/1103—Learning Activities.....0—2—1
A course designed to give students the opportunity for “hands on” activities. Such activities include language activities, science experiments, art media, music activities, pre-math experience, cooking, and workshops in cardboard carpentry and learning games.
- EDU 0104/1104—Learning Activities.....0—2—1
A continuation of EDU 0103/1103.
- EDU 0105/1105—Learning Activities.....0—2—1
A continuation of EDU 0103/1103.
- EDU 0110—Occupational Analysis & Course Development.....3—0—3
Principles and techniques of selecting and analyzing suitable teaching activities and arranging such material into a functional instructional order. Instructional units prepared will be based on an analysis of a vocational occupation or activity.
- EDU 0111—Instructional Methods.....3—0—3
This course includes the various instructional methods in vocational education with emphasis on behavioral objectives and individualized instruction.
- EDU 0112—Shop Organization and Planning.....3—0—3
A study of problems related to vocational shop layout, planning and management, supplies and equipment handling, textbooks, and sources of materials.
- EDU 0113—Shop Safety.....3—0—3
Basic principles of school shop safety will be studied. The OSHA regulations pertaining to educational institutions will be emphasized. Good housekeeping and fire prevention will be studied as well as machine guarding and personnel protective equipment for various types of school shops. The importance of safety planning will be stressed.
- EDU 0201/1201—Language Arts.....3—0—3
A study of content, method, and materials of language arts skills. (F)

EDU 0202/1202—Social Sciences.....	3—0—3
A study of content, method, and materials of social studies for use in the Early Childhood curriculum. Special attention is given to art and music in relation to social studies. (W).	
EDU 0203/1203—Life-Applied Science.....	3—0—3
A study of content, method, and materials of science and math in relation to Early Childhood Education. (SP)	
EDU 0204/1204—A-V Materials/Equipment.....	3—0—3
Instruction in the use of A-V equipment and materials. Emphasis is given to the selection, integration, and evaluation of materials used. Special attention is given to the variety of materials available. (SP)	
EDU 0210/1210, 0212/1212, 0214/1214—Seminar.....	2—0—0
A seminar which gives the student an opportunity to express practicum experiences. Emphasis is placed on special and communications techniques, and lesson and unit planning. The practicum correlating with the seminar must be taken the same quarter. Seminar credit is reported in practicum. (F, W, SP)	
EDU 0211/1211, 0213/1213, 0215/1215—Practicum.....	0—6—4
A practicum experience which allows the student to teach and develop skills in an actual classroom situation under the supervision of an instructor. The seminar correlating with the practicum must be taken the same quarter. (F, W, SP)	

Education

ELC 1011, 1012—Electrical Installation.....	2—4—3
Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups.	
ELC 1100—Applied Electricity.....	3—12—7
An introduction to the fundamentals of electricity, including electron theory; voltage, current and resistance relationships; the analysis of series, parallel circuits; concepts of alternating current, impedance; phase; reactance; power; and the properties of series and parallel resonance.	

Electricity

Electricity

- ELC 1101—AC/DC Current.....10—12—14
A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. An analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. A study of the sources of direct current voltage potentials. Fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. (F)
- ELC 1102—Residential Wiring.....5—10—8
Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups. Prerequisites: ELC 1101, DFT 1111. (W)
- ELC 1103—AC/DC Machines and Controls.....8—14—13
Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction in the use of electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, timers, or sequencing switches. Prerequisites: ELC 1101. (SP)
- ELC 1104—Industrial Wiring.....5—7—7
Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation and installation of simple systems. Prerequisites: ELC 1101. (SU)
- ELC 1105—Basic Wiring.....4—11—6
Introduction to electrical theory and practice - electricity, magnetism, house wiring, construction drawings, communicating, mathematics, motors and generators.
- ELC 1106—Residential Wiring I.....4—11—6
Electrical applications - residential circuits and wiring practice, basic electrical devices, electric code. Electric circuits — AC theory. Job material requirements. Communication system operation. Prerequisite: ELC 1105.

- ELC 1107—Residential Wiring II.....4—11—6
 Electrical Applications - residential power distribution and circuit protection, household equipment and appliances, subdivision and area power distribution, and electric machines. Business - organization and people, job costs and correspondence. Electronic systems.
- ELC 1108—Industrial Wiring4—11—6
 Electrical applications - plant power distribution, industrial construction drawings, power generating and distribution systems. Electronic Circuits. Business - accounting, law taxes, contracts, finance, estimating, billing and personnel management.
- ELC 1112—Industrial Electronics3—5—5
 Basic theory, operating characteristics, and application of vacuum tubes such as: diodes, triodes, power supplies using diodes, and other basic applications. Prerequisite: ELC 1101. (W)
- ELC 1114—Industrial Electronics4—6—7
 Basic industrial electronic systems such as: motor controls, alarm systems, heating system and control, magnetic amplifier control, welding control systems using thyatron tubes, and other basic types of systems commonly found in many industries. Prerequisite: ELC 1112. (SU)
- ELC 1115—Industrial Controls.....3—6—5
 A study of control components, pilot devices, motor starters, master controllers, protective devices, rotating and magnetic amplifiers, regulators, relay and static switching circuits, and the development of schematic motor control wiring diagrams.
- ELN 1101—Fundamentals of Electronics10—15—15
 Elementary principles of electricity including basic electrical units, Ohm's Law, Kirchoff's Law, network theorems, magnetics, basic electrical measuring instruments, inductance, capacitance, and sine wave analysis.
- ELN 1102—Tubes/Transistors8—15—13
 An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum diodes, semi-conductor diodes, rectifier circuits. Transistor theory, operation, characteristics, and their application to audio and radio frequency amplifier and oscillator circuits. Troubleshooting and repair of solid state devices. Prerequisites: ELC 1101. (W)

Electricity

Electronics

Electronics

- ELN 1103—Radio Receiver Servicing.....5—6—7
An introduction of commonly used servicing techniques as applied to monophonic and stereophonic high fidelity amplifier systems and auxiliary equipment. The operation and servicing of inter-communication amplifiers and switching circuits will also be taught. Principles of radio reception and practices of servicing, including block diagrams of radio receivers, servicing techniques of AM and FM receivers by resistance measurements, signal injection, voltage analysis, oscilloscope methods of locating faulty stages and components and the alignment of AM and FM receivers. Prerequisites: ELN 1102, ELC 1101. (SP)
- ELN 1104—Television Receiver Servicing.....5—17—11
A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits. Techniques of troubleshooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveform analysis will be used in the adjustment, troubleshooting and repair of the color television circuits. Prerequisites: ELN 1101, 1102. (SU)

Electronics

- ELN 1113—Amplifier Systems.....5—9—8
An introduction to the types of amplifier circuits used in monophonic and stereophonic high fidelity amplifier systems and auxiliary equipment. Servicing techniques will also be studied. Prerequisites: ELN 1101, ELN 1102. (SP)

Technology

- ELC 0101—DC Circuit Analysis.....5—3—6
Direct current principles of electricity in series, parallel, and compound circuit using Ohm's Law and network analysis theorems. Introducing sine wave development and analysis, and non-resonant resistive, inductive, and capacitive circuits.
- ELC 0102—AC Circuit Analysis.....5—3—6
Alternating current principles of electricity in linear and complex circuits using Ohm's Law and network analysis theorems. Series and parallel resonant circuit analysis, resonant and non-resonant transformer analysis, and introduction to electro-mechanical devices.
- ELN 0105—Control Devices.....3—4—5
A study in depth of the electrical characteristics of electron tubes and semiconductors. Basic parameters and applications of each type device to the configurations of two and three terminal two part systems will be included.

- ELN 0210—Circuit Analysis3—2—4
 A study of the practical analysis of semiconductor circuits. The use of readily available data is emphasized. Device peculiarities and limitations pertinent to reliable operations are considered. Equipment circuits and H, Y, and Z parameters are employed. Concepts of signal flow diagrams are introduced.
- ELN 0220—Electronic Systems.....5—4—7
 A course utilizing the functional schematic diagrams as the medium for studying and analyzing electronic systems. The functions of circuits studied in prior courses are represented by blocks arranged in a flow chart to form a complete system or equipment diagram. The same circuits arranged in different configurations and different numbers are made to represent systems of varying complexity. Systems will be reduced to functions, and then to functional schematic diagrams. Wire and wireless communication, industrial measurement and control, computers, navigation, radar and sonar will be considered.
- ELN 0225—Transmission and Propagation.....3—6—6
 An introduction to the electromagnetic radiation, principles of antenna, radiation patterns and field strength. The characteristics and use of transmission lines in radio frequency application. Factors involved in propagation, ground waves, reflections, sky waves, atmospheric effects, ionosphere, fading, noise, static, wire radiators, directive gain, effect of ground, impedance, antenna systems and arrays.
- ELN 0227—UHF and Microwave Systems3—4—3
 A study of UHF and components, circuits, and measurement techniques. The use of distributed constant elements, waveguides and coaxial cables, microwave links, high frequency oscillators, magnetrons, klystrons, traveling wave tubes. An introduction to the use of the Smith Chart.
- ELN 0230—Television Systems5—3—6
 A study of the principles of television including the television system, camera tubes, scanning and synchronization, composite video signal, receiver circuits, transmitting equipment, color television, and closed loop systems.
- ELN 0245, 0246—Electronic Design Project.....1—4—3
 Students are required to design and construct a project approved by the instructor. Includes selection of project, design, construction, and testing of completed project. Projects may include the following: AM or FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, masers, etc.

Electronics Technology

Electronics Technology

ELN 0270—Communications.....5—0—5

The study of information transfer by electronic methods. Topics include modulation, multiplexing and radar, AM, FM, and PM transmission and reception, and their use in telemetry and communications. The course covers Federal Communications Commission regulations and transmitter operation, preparing the student for an F.C.C. Radio-Telephone License.

ELN 0275—Introduction to Data Communications.....3—3—4

Radio and wire transmission of information and data. Both binary coded and analog communications are studied. Modulating, demodulating and other interface circuits are considered. Number systems, especially the binary and their relationship to the decimal system, are introduced.

Engineering Drawing

EGR 0101—Engineering Drawing I.....0—6—3

The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included and use of drafting equipment, lettering, free-hand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced. This course may be taken in a regular class or as an independent study.

EGR 0102—Engineering Drawing II.....0—6—3

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects. This course may be taken in a regular class or as an independent study. Prerequisite: EGR 0101.

- ENG 0100—Reading Proficiency3—0—3
 A developmental reading course for students enrolled in college parallel and technical programs designed to improve reading ability in the areas of comprehension, vocabulary development, reading speed, and study skills. (F, W, SU)
- ENG 0101—Freshman Composition I3—0—3
 A reading and writing course designed to develop the student's interest in relevant issues through reading and discussion; to develop the student's competence in composition in the area of the sentence and the paragraph; to introduce the student to the college library. (F, W, SP, SU)
- ENG 0102—Freshman Composition II3—0—3
 A course designed to develop the student's competence in writing the longer composition. Emphasis will be on composing the essay and the critical review from a study of models. Prerequisite: ENG 0101. (W, SP, SU)
- ENG 0103—Freshman Composition III3—0—3
 A study of the use of the library and library materials for research: a study of the techniques and mechanics of writing a research paper; compiling a documented research or library paper. A study of selected literary works illustrating various types of literature. Prerequisite: ENG 0102. (SP, SU)
- ENG 0104—Business Communications (T)3—0—3
 A course emphasizing business writing and reading about the art of communication in business. Prerequisite: ENG 0102. (SP, SU)
- ENG 0105—Technical Report Writing (T)3—0—3
 The fundamentals of English are utilized as a background for organizations and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum. Prerequisite: ENG 0102.
- ENG 0160—Public Speaking3—0—3
 Instruction and practice in effective public speaking; listening to and evaluating speeches; preparation and presentation of speeches for various occasions such as impromptu, extempore, after dinner, introduction of speaker, presiding at meetings, etc. (F, SP, SU)

English

English

- ENG 0161—Journalism.....0—2—1
 A laboratory course with the primary objective of publishing the college newspaper. Any student who is eligible to enter English 0101 and who is a member of the school paper staff may take three quarters of Journalism for credit (one hour credit each quarter). (F, W, SP)
- ENG 0201—English Literature I.....3—0—3
 A survey of English Literature from the fifth through the eighteenth century. Representative works are related to historical background and language development. Term paper (optional). Prerequisite: Successful completion of freshman English courses. (F, SU)
- ENG 0202—English Literature II.....3—0—3
 A survey of English literature of the nineteenth and twentieth centuries with special attention to development of literary types. Term paper (optional). Prerequisite: Successful completion of freshman English courses. (W, SU)
- ENG 0203—Major American Writers.....3—0—3
 Survey of American literature presenting representative works and types selected by the instructor. Term paper (optional). Prerequisite: Successful completion of freshman English courses. (SP, SU)
- ENG 0260—Creative Writing.....3—0—3
 A course designed to develop the student's potential as a creative writer, consisting of a study of basic fundamentals, selected contemporary models, and a variety of practical classroom exercises. The student will experiment in three types of original composition: poetry, the short story, and the personal essay. (SP)
- ENG 0261—Literature for the Theatre.....3—0—3
 A beginning course in Drama which includes reading plays from various periods, and developing knowledge of theatre and theatre techniques. (SP)
- ENG 1100—Reading Improvement.....3—0—3
 A developmental reading course for vocational students designed to increase proficiency in comprehension, vocabulary development, and reading speed. (W)
- ENG 1101—Communication Skills.....3—0—3
 Designed to promote effective communication through correct language usage in speaking and writing. (F, W)

GEG 0160—Physical Geography.....	3—2—4
The earth's astronomical relations, factors of weather and climate, and physiographic features. Two lab hours per week. (F)	
GEG 0161—World Regions.....	3—0—3
Relation of human activities to the larger geographic regions of the world. (W)	
GEG 0162—Economic Geography.....	3—0—3
Geographic factors involved in production, distribution, consumption, and conservation of the major crops, minerals and industries of the world. (SP)	
HEA 0101—Personal Health.....	3—0—3
A study of the physical, emotional, and mental health problems as they relate to man and his internal environment. Emphasis is placed on current health problems and their relationship to the individual. (W, SU)	
HEA 0102—Community Health.....	3—0—3
A study of health problems, causes and prevention, and requirements in the home and community. Special attention is given to health problems on the national, state, and local levels. (F)	
HEA 0103—First Aid.....	3—0—3
A study of accident and emergency situations; causes, prevention, and appropriate first aid treatment. A course of instruction, with laboratory work, designed to develop competency in recognition of the symptoms of common injuries and illnesses, and the performance of first aid skills. (F, W, SU)	
HEA 0202—Sex and Sexuality.....	3—0—3
A study of the biologic and physiologic elements of sex and reproduction, and that which is involved in our identity as sexual beings. A course of instruction which includes the psychological and social aspects of human sexuality. (SP)	
HEA 0201/1201—Child Safety.....	3—0—3
A study of personal health in relation to the emotional, physical, and mental self of the child. Special attention is given to nutrition, accidents, anatomy, physiology, disease, and effects of the community upon health. (W)	

Geography

Health

History

- HIS 0101, 0102, 0103—World Civilization.....3—0—3
A survey of world history with special emphasis on European background and development in three time periods: ancient and early medieval, later medieval Western and early modern, and the modern period. (F-SU, W-SU, SP-SU)
- HIS 0260, 0261, 0262—History of the United States.....3—0—3
A survey of the history of the United States: 1492-1840; 1840-1896; 1896 to date. (F-SU, W-SU, SP-SU)

Humanities

Humanities electives may be taken from among any Art, Music, Religion, or English courses (except English 100 or English 104).

Industrial

Mechanics

- IDM 1101—Industrial Mechanics I.....3—12—7
An introduction to the fundamentals of electricity, including electron theory; voltage, current and resistance relationships; the analysis of series and parallel circuits; concepts of alternating current, impedance; phase; reactance; and power. The fundamentals of math will also be taught with the electrical part.
- IDM 1102—Industrial Mechanics II.....3—12—7
Industrial safety pertaining to the industrial plant will be stressed in this course. OSHA material will be presented. Also during this course a study of electrical machinery, A/C and D/C motors and generator principles; testing field coils, armatures, commutators, slip rings, bearings, brushes, brush holders; and replacing defective parts will be conducted.
- IDM 1103—Industrial Mechanics III.....3—12—7
A study of basic arc welding procedures will be conducted. This arc welding will lead into the plumbing and pipe fitting, study will be made of plumbing fixtures; repair and maintenance of flush valves, faucets, and traps; use of various types of fitting techniques will be emphasized.
- IDM 1104—Industrial Mechanics IV.....3—12—7
A study of various types of pumps and controls including air, hydraulic and water. Also the student will study the principles of machine elements. Emphasis will be placed on linkages, velocities, and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains.
- IDM 1121—Electric Motor and Generator Repair.....2—4—4
A study of electrical machinery, A/C and D/C motors and generator principles; testing field coils, armatures, commutators slip rings, bearings, brushes, brush holders; and replacing defective parts.

IDM 1122—Industrial System Schematics3—0—3

The student will study schematic representations of water and gas plumbing, hydraulic and pneumatic circuits, and electrical circuits. A brief overview of each area will be given to provide the student with a basic knowledge of the physical phenomena associated with each of these energy transport systems.

IDM 1123—Plumbing and Pipe Fitting.....2—3—3

A study of various types of plumbing fixtures; repair and maintenance of flush valves, faucets, and traps; use of various types of pipe fittings; threading and fitting pipe. The student will learn to service various types of plumbing and pipe fitting.

IDM 1124—Duct Construction and Maintenance.....2—6—4

Study of various duct materials including sheet steel and aluminum. Safety, sheet metal hand tools, cutting and shaping machines, fasteners and fabrication practices, layout methods, and development of duct systems. The student will service various duct systems and perform on-the-site repairs. A study is made of duct fittings, dampers and regulators, diffusers, heater and air washers, fans, insulation and ventilating hoods.

IDM 1125—Pump Repair and Maintenance.....2—6—4

A study of various types of pumps and controls including air, hydraulic and controls including air, hydraulic and water. The student will learn to disassemble, inspect and reassemble, replace worn parts, lubricate and perform minor repairs.

IDM 1126—Mechanisms.....2—3—3

Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities, and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains.

ISC 0101—Principles of Industrial Management.....3—0—3

The basic managerial decisions; organizational structure including plant location, building requirements and internal factory organization; problems of factory operation and control, planning, scheduling, routing factory production, stores control, labor control, purchasing, cost control. Plant problems are utilized as lab experiments.

Industrial Mechanics

Industrial Science

Industrial Science

- ISC 0102—Job Analysis and Evaluation3—0—3
This study is based on product studies as well as personnel and wage program. The course utilizes the study of product design, value analysis, materials and processes as an intricate part of productive procedures.
- ISC 0103—Industrial Marketing3—0—3
Purchasing and distribution costs; consumption patterns, channels of distribution; marketing of consumer goods; shopping, speciality, agricultural and industrial goods; service marketing; functional middlement; speculation and hedging; wholesaling; shipping and warehousing; exporting and trade movements; standardization and grading; pricing, government regulation of competition; sales promotional activities; merchandising practices.
- ISC 0104—Work Measurement3—0—3
Principles of work simplification including administration of job methods improvement, motion study fundamentals and time study techniques. Use of flow and process charts, multiple activity charts, operation charts, flow diagrams and methods evaluation.
- ISC 0105—Industrial Safety3—0—3
Problems of accidents and fire in industry. Management and supervisory responsibility for fire and accident prevention. Additional topics cover accident reports and the supervisor; good housekeeping and fire prevention; machine guarding and personnel protective equipment; state industrial accident code and fire regulations; the first aid department and the line of supervisory responsibility; job instruction and safety instruction; company rules and enforcement; use of safety committees; insurance carrier and the Insurance Rating Bureau; and advertising and promoting a good safety and fire prevention program.
- ISC 0106—Work Compensation3—0—3
Basic systems and plans of compensating employees. Wages and salaries, structures, incentive plans, and fringe benefits such as holiday pay, pension, sick leave, life and hospitalization insurance are included.
- ISC 0201—Foremanship Supervision3—0—3
The foreman's responsibility for planning, organizing, directing, controlling, and coordinating supervisory activities. It teaches the supervisor the basic functions of an organization and his responsibility in carrying out the objectives in accordance with the organization's plan. Included in the course are such topics as establishing lines of authority, functions of departments of units, duties and responsibilities, policies and procedures, and rules and regulations.

ISC 0202/0212—Quality Control	3—0—3
An introduction to probability, statistics, and quality control techniques. Elementary sampling techniques and tests for significance are included. Correlation, chi-square, T and F test. Problem solving related to production efficiency.	
ISC 0203—Plant Layout	3—0—3
A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Layouts for small and medium-sized plants, layout fundamentals, selection of production equipment and materials handling equipment. Effective management of men, money and materials in a manufacturing operation.	
ISC 0202—Management Problems	3—0—3
A study of personnel and production problems from the stand-point of the executive. Includes selection and development of products, control problems and techniques, development of standards, employee-employer relations, developing the executive staff. Case studies are utilized.	
ISC 0205—Value Analysis	3—0—3
The modern concept in the control of manufacturing production. This course will provide the students an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary cost by the use of sound decisions through a common sense approach.	
ISC 0206—Production Planning	3—0—3
Day-to-day plant direction; forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed and courses of corrective action are developed. Actual layouts are utilized for planning and control.	
MAS 1011, 1012—General Masonry	2—4—3
The history of the bricklaying and the masonry industry, raw materials, basic manufacturing processes and terminology. Clay and shell brick, mortar, laying foundations, cutting masonry materials, bonding, and the use, care, and maintenance of tools. Practice is given in selecting the proper mortars, layout and construction of various building elements.	

Industrial Science

Masonry

Mathematics

- MAT 0100—Basis for College Mathematics.....3—0—3
A course designed to provide the background necessary for further study in mathematics. It includes fundamental operations in whole numbers, fractions and decimals with some introductory topics in algebra and is required for those people who score below the 25th percentile on the C.Q.T. (F)
- MAT 0101—Foundations of Mathematics I.....5—0—5
A follow-up to Math 0101 that is similar in approach and scope. Topics include: Exponents, Logarithms, Introduction to Analytic Geometry and Linear Programming, Numerical Trigonometry, and Enumeration. Prerequisite: MAT 0101 (W, SP)
- MAT 0110—Business Math (T).....3—0—3
Review and practice in the arithmetic of whole numbers, fractions, decimals, and percentage. (F, W)
- MAT 0111—Technical Math (T).....5—0—5
Review of fundamental arithmetic and extension to beginning algebra and trigonometry, with emphasis given to their applications to practical problems. (F)
- MAT 0120—Introductory Algebra.....5—0—5
A course in beginning Algebra for those students who plan to take College Algebra and Trigonometry (MAT 0121) but who are not adequately prepared for such a course. Math 0120 is developmental in nature, carrying elective credit only; it cannot be used to satisfy the graduation requirement in Mathematics. Topics include: signed numbers, algebraic expressions, solving first degree and quadratic equations, factoring, exponents, radicals and graphing. (F)
- MAT 0121—College Algebra and Trigonometry I.....5—0—5
An integrated course in algebra and trigonometry designed to provide a thorough preparation for courses in Calculus and Analytic Geometry. Topics include: Functions and their inverses, Algebraic Fractions, Equations and Inequalities, Exponents, and Trigonometric Functions. Prerequisite: Minimum score of 75 on C.Q.T. or MAT 0120. (W)

- MAT 0122—College Algebra and Trigonometry II5—0—5
 A course continuing the pattern of Math 0121. Topics include: Polynomial Functions, Logarithms, Complex Numbers, Trigonometric Identities, Inverse Trigonometric Functions and Series. Prerequisite: MAT 0121 or C.Q.T. score of 75 and permission of instructor. (SP)
- MAT 0131 Calculus and Analytic Geometry I5—0—5
 A first course in calculus and analytic geometry covering the straight line, functions, limits, the derivative and applications of the derivative. Prerequisite: MAT 0122 or minimum score of 75 and the approval of the instructor. (F)
- MAT 0132 Calculus and Analytic Geometry II5—0—5
 A second course in calculus covering antiderivatives, the definite integral, applications of the definite integral, differentiation and integration of exponential, logarithmic, trigonometric, inverse trigonometric, and hyperbolic functions. Prerequisite: MAT 0131. (W)
- MAT 0133 Calculus and Analytic Geometry III5—0—5
 A course covering methods of integration, conic sections, polar coordinates, indeterminate forms, improper integrals and infinite series. Prerequisite: MAT 0132. (SP)
- MAT 0140 Introductory Statistics5—0—5
 A course dealing with collecting, representing, analyzing, and interpreting information. Topics include: Descriptive Statistics, An Introduction to Probability, the Binomial and Normal Distributions, Large and Small Sample Theory including Hypothesis Testing, Correlation, and Chi-square. Problems and applications from several disciplines in addition to mathematics are included. This course is especially recommended for students who plan to enter areas of mathematics, engineering, science, medicine, psychology, sociology, and business. Prerequisite: MAT 0101 or MAT 0121. (W, SP)
- MAT 0231 Calculus and Analytic Geometry IV5—0—5
 A course in solid analytic geometry and multivariate calculus. Topics include 3-dimensional coordinates, vectors, quadric surfaces, partial derivatives, directional derivatives, and multiple integrals. Prerequisite: MAT 0133. (F)

Mathematics

Mathematics

- MAT 0240 Linear Algebra 5—0—5
A semi-rigorous approach to the fundamentals of linear algebra including systems of equations and matrices, vector spaces, and transformations. Prerequisite: MAT 0131. (W)
- MAT 1100 Basic Mathematics 3—0—3
Review and practice in the arithmetic of whole numbers, fractions, decimals, and percentage. (F)
- MAT 1101 Math Fundamentals 5—0—5
Review and practice in the fundamental operations with whole numbers, fractions, decimals, and percentage. Formulas and practice problems are drawn from the skill areas of the vocational programs. (F)
- MAT 1102 Measurement 3—0—3
Practice in the use of formulas used by the metals technician. Areas, volumes, weights, and costs are considered. Prerequisite: MAT 1101. (W)
- MAT 1103 Electrical Math 5—0—5
Review and practice in the fundamental operations with whole numbers, fractions, decimals, and percentage. Introduction to powers and roots as they apply to the electrical trades. Practice problems are drawn from the electrical trades. (F)
- MAT 1104 Electrical Math 5—0—5
Continuation of topics in Math 1103, including formulas, ratio and proportion, logarithms, and right triangle trigonometry. The slide rule is introduced early in the course and used throughout for all calculations. (W)

Music

- MUS 0160 Chorus 2—0—1
Study-activity course designed to give the student a deeper understanding, appreciation, and enjoyment of choral music and its practice. Open to all students by permission of the instructor. Student may take this course for six quarters for credit. (F, W, SP)
- MUS 0161 Music Appreciation 3—0—3
A historical survey of music from its primitive beginning to the present. Designed to develop a deeper understanding, appreciation, and enjoyment of music, recorded music examples. Listening assignments. Open to all students. (F, W, SP)
- MUS 0162 Contemporary Music 3—0—3
Contemporary Music is a survey of the various types of music of the 20th century: serious music, pop music, jazz, and the musical theater. Representative works related to the historical and cultural background are studied. (W)

MUS 0163 Guitar.....3—0—3

This course employs an audiovisual method of teaching theory and music appreciation. Students learn to play the guitar by means of the audiovisual method. Each student receives an especially designed guitar to use in class and at home for the entire quarter. In class the guitar and a set of earphones are plugged into a station designed so that each student hears the instructor and his own guitar while a visual presentation is made on the screen. The guitar is returned at the end of the quarter; the instruction book and two records belong to the student. The cost covering the book, two records, use of the guitar, and the classroom instruction is \$25. (F, SP)

Music

The following activity courses (PER 0101-0162 or 0201-0207) are open to all students for fulfillment of general education requirements.

Physical Education

PER 0101 — Conditioning (SP)	0—2—1
PER 0103 — Tumbling (F)	0—2—1
PER 0104 — Tennis (F, SP, SU)	0—2—1
PER 0105 — Badminton (W)	0—2—1
PER 0106 — Golf (F, SP, SU)	0—2—1
PER 0107 — Archery (F, SP, SU)	0—2—1
PER 0108 — Bowling (W)	0—2—1
PER 0109 — Roller Skating (W)	0—2—1
PER 0110 — Wrestling (W)	0—2—1
PER 0111 — Swimming (SU)	0—2—1
PER 0112 — Folk/Square Dancing (W)	0—2—1
PER 0113 — Social Dancing (F)	0—2—1
PER 0114 — Modern Dancing (F)	0—2—1
PER 0201 — Volleyball (F)	0—2—1
PER 0202 — Basketball (W)	0—2—1
PER 0204 — Softball (SP)	0—2—1
PER 0205 — Touch Football (F)	0—2—1
PER 0206 — Soccer (SP)	0—2—1
PER 0207 — Field Hockey (SP)	0—2—1

PER 0160, 0161, and 0162 Restrictive Physical Education.....0—2—1

A course designed specifically to meet the need of those individuals who have temporary or permanent physical impairments. Students entering this course must obtain a restrictive form from the Physical Education Program. (F, W, SP)

Physical Education

PER 0240/1240 Child Physical Education3—0—3
A study of methods, materials, and content in physical education for pre-school and primary children. Special attention is placed on the nature, need, and progressive development of physical activities with emphasis upon the individual differences of the child. (SP)

PER 0163 Intramural Sports2—0—2
A study of the philosophy, organization, and administration of intramural sports program. Practical experience is gained through working in the Isothermal Community College Intramural program. (F) Does not apply toward fulfillment of Physical Education requirement for graduation.

PER 0164, 0165 Intramural Sports0—2—1
Practical experience in intramural sports. Prerequisite: PER 0163. (W, SP) Does not apply toward fulfillment of Physical Education requirement for graduation.

PHY 0201 General Physics3—3—4
An introduction to systems of measurements, properties of matter (solids, liquids, gases), and mechanics. Laboratory experiments in mass, pressure, volume, and mechanics. Three laboratory hours per week. (F)

PHY 0202 General Physics3—3—4
Electron theory, magnetism, electricity, and heat. Direct and alternating currents, series and parallel circuits. Heat temperature and change of state. Laboratory experiments in resistance, voltage and current measurements, and magnetic and electromagnetic effects. Three laboratory hours per week. Prerequisite: PHY 0201. (W)

PHY 0203 General Physics3—3—4
A study of light and sound wave motion, measurements of intensity, velocities, frequencies, and qualitative analysis. Three laboratory hours per week. Prerequisite: PHY 0202. (SP)

PHY 1100 Applied Science3—2—4
An introduction to physical principles and their application in industry. Topics in this course include measurement, properties of solids, liquids, gases and basic electrical principles. Two laboratory hours per week. (SU)

Physics

- PHS 0101, 0102, 0103 Man and His Physical Environment3—3—4
 An integrated perspective of the physical sciences, study of selected topics such as systems of measurement, the expanding universe, structure of the earth, kinetic molecular theory of matter, energy (types, transformation, utilization), properties of elements and compounds, structure and utilization atoms. The role of science in the development of civilization is emphasized. Three laboratory hours per week. (F, W, SP)
- PLU 1011, 1012 Plumbing Installations 2—4—3
 The students are introduced to the tools, fittings, and equipment used by plumbers. They spend considerable time learning to handle these materials and tools correctly by cutting pipe, threading, caulking, and sweating joints of the various kinds of pipe and tubing. Plumbing installations are made to provide practical applications. Heating devices, and the storage and circulation of hot water will be studied. The student will receive practice in the installation of various plumbing fixtures and the proper use of traps. Field trips should be taken to study various types of installations.
- PNE 1101 Nursing Fundamentals 6—8—10
 This course is designed to assist the student in acquiring the attitudes, knowledge, and understanding necessary to give care to patients of all ages and backgrounds. Emphasis is on consideration of the total patient and mental, emotional, and physical needs. Basic nursing procedures for patient care is an integral part of the course. (F)
- PNE 1102 Anatomy/Physiology 5—0—5
 Anatomy and Physiology provide the student with a thorough understanding of the general plan of the body and its ten systems. The skeletal, muscular, circulatory, respiratory, digestive, urinary, reproductive, endocrine, nervous, and sensory systems are studied to understand how the body moves, controls its functions, distributes foods, removes wastes and reproduces itself. (F)
- PNE 1103 Nutrition 2—0—2
 Nutrition is designed to provide knowledge of functions and sources of nutrients; mechanics of digestion, absorption, and metabolism; principles of meal planning and therapeutic use of special diets. (F)

Physical Science

Plumbing

Practical Nurse

Practical Nursing

- PNE 1104 Pediatrics6—0—6
 Pediatrics is designed to assist the student to understand the difference between diseased children and adults. Basics of child growth and development and common disease of infants, children, and adolescents and special nursing care are included. (W)
- PNE 1105 Maternity Nursing4—0—4
 Obstetrics is a study of the fundamentals of maternity nursing. Included are: normal pregnancy, labor, delivery, the normal newborn, complications of pregnancy and delivery, and common disorders of the newborn. (SP)
- PNE 1111 Vocational Adjustment I3—0—3
 Necessary adjustments to nursing as a vocation is the core of vocational adjustments I. The student is guided toward understanding himself better and thus understanding others. Legal aspects of nursing are also considered. (SU)
- PNE 1112 Vocational Adjustment II2—0—2
 This course, a continuation of vocational adjustments I, considers how to apply for and resign from a job, professional conduct, and further study of the legal aspects of nursing. (SU)
- PNE 1113 Medical Surgery I3—3—4
 Introduces the student to the fundamentals of medical-surgical patient care with the central objective being able to render effective nursing assistance to patients with medical-surgical conditions. The student should be able to recognize modern concepts of nursing as applied to medical and surgical nursing, to discuss causes of disease, to describe methods of diagnosis, to apply beginning skills in assisting with diagnostic procedures, and to discuss therapeutic methods commonly prescribed. (W)
- PNE 1114 Medical Surgery II2—2—3
 A continuation of medical surgery I combined with a study of diseases of the systems of the body and related nursing care. (SP)
- PNE 1115 Medical Surgery III6—4—7
 This course is designed to develop knowledge and skills in the area of care for the seriously ill patients. Emphasis is given to the principles and beginning skills of nursing as related to care of the seriously ill patient. (SU)
- PNE 1116 Pharmacology I6—0—6
 A study of methods applied to calculating drug dosages by the use of fractions and decimals; integrated with the learning of drug classifications; recognizing side-effects of drugs, and the development of the skill of giving oral medications. (W)

PNE 1117 Pharmacology II	4—0—4
A continuation of pharmacology I, development of knowledge for preparing solutions by using proportion methods. Systems for measuring drugs, conversion problems within system and from system to system also, development of a thorough knowledge of sterile techniques and equipment used in preparing and giving injections. Laboratory and clinical experience included. (SP)	
PNE 1121 Clinical	0—14—5
Clinical experience is designed to reinforce classroom learning. The student is assigned to specific areas in the hospital for care of medical, surgical, obstetric, and pediatric patients, as well as orthopedic, urological, obstetric, and gynecological clinics. (W)	
PNE 1122-1123 Clinical	0—21—7
A continuation of PNE 1121. (SP, SU)	
POL 0260—American Government	3—0—3
A study of the formation and development of the national government; the Constitution; and the national government's organization, functions, and powers. (F)	
POL 0261—Problems and Policies of American Government	3—0—3
A study of the politics, functions, and progress of the national government. Specific policies in the area of labor, agriculture, welfare, business, civil rights, citizenship, and national security; using a background of history, politics, and government institutions. (W)	
POL 0262—American State and Local Government	3—0—3
A study of the organization, function, and powers of state and local government throughout the United States. (SP)	
PSC 0101—Introduction to Law Enforcement	3—0—3
A general course designed to familiarize the student with a philosophy and history of law enforcement, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of the various law enforcement agencies, a delineation of the basic processes of justice, an evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation.	

Practical Nursing

Political Science

Police Science

Police Science

- PSC 0102—Police Organization and Administration I.....3—0—3
Introduction to principles of organization and administration, discussion of the service functions; e.g., personnel management, police management, training, communications, records, property maintenance and miscellaneous services.
- PSC 0103—Police Role in Crime and Delinquency.....3—0—3
The study primarily concerned with scientific efforts to understand crime and to understand man in relation to crime phenomena. It deals with those definitions and formulations of crime and criminals upon which an adaptation system of criminology must be based. It examines the law as the basic framework within which social deviations of a peculiar character assume their functions as criminal acts and those broad principals upon which a science of criminology must rest.
- PSC 0201—Traffic Planning and Management3—0—3
A study which covers the history of the traffic enforcement problem and gives an overview of the problem as it exists today. Attention will be given to the 3 E's and legislation, the organization of the traffic unit, the responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, evaluation of the traffic program effectiveness, and the allocation of men and materials.
- PSC 0202—Criminal Law.....3—0—3
Designed to present a basic concept of criminal law and create an appreciation of the rules under which one lives in our system of government.
- PSC 0203—Criminal Evidence3—0—3
Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court. Prerequisite: PSC 0202
- PSC 0204—Criminal Investigation3—0—3
This course introduces the student to fundamentals of investigation: crime scene search, recording, collection and preservation of evidence; sources of information; interview and interrogation; case preparation and court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery, and homicide. Prerequisite: Admission to the program and permission of the instructor-coordinator.

- PSC 0205—Introduction to Criminalistics3—0—3
 Continuation of the study of criminal investigation including a general survey of the methods and techniques used in modern scientific investigation of crime, with emphasis upon the practical use of these methods by the students. Laboratory techniques will be demonstrated and the student will participate in actual use of the scientific equipment. Prerequisite: Admission to the program; permission of instructor-coordinator; satisfactory completion of PSC 0204.
- PSC 0206—Criminal Procedure3—0—3
 This course is designed to provide the student with a review of court systems; procedures from incident to final disposition; principles of constitutional, federal state and civil laws as they apply to and affect law enforcement.
- PSY 0101—Personality Development (T)3—0—3
 Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement. (F)
- PSY 0102/1102—Child Development I3—0—3
 Consider the development sequence of pregnancy, prenatal and infant periods. The conditions necessary for optimal development and individual differences, perceptual-cognitive and emotional responses will be stressed. (F)
- PSY 0103/1103 Child Development II3—0—3
 Consider the developmental sequence and characteristic behavior from the pre-school child through adolescence. Special attention is given to the physical growth, attitudes, social, emotional, and cognitive development as they relate to behavior. (W)
- PSY 0201—Business Psychology3—0—3
 A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems. Other topics investigated are the following: employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community. (W)

Police Science

Psychology

Psychology

- PSY 0260—General Psychology3—0—3
This course is designed to acquaint the student with the various aspects of psychology at the introductory level. (F, SU)
- PSY 0261—Developmental Psychology3—0—3
The course is designed to acquaint students with the complex developmental processes of humans from childhood to older maturity. (W, SU)
- PSY 0262—Introduction to Applied Psychology3—0—3
This course explores the field of psychology with reference to its application in human affairs. (SP)
- PSY 1101—Human Relations3—0—3
This course is designed to enable students to better understand the basic principles in human behavior. The human relations problems of the individuals are studied in relations to society, group membership, and relationships within the work situation.
- PSY 1101—Nursing Human Relations3—0—3
This course is designed to enable nursing students to better understand the basic principles of human behavior. Human relations problems are studied with special emphasis on individual rights, society, group membership, and nurse patient situation. (F)

Religion

- REL 0160—Introduction to the Old Testament3—0—3
A survey or introduction to the life, literature, geography, and religion connected with the Old Testament. (F, SU)
- REL 0161—Introduction to the New Testament3—0—3
This course is designed to acquaint the student with the history, literature and personalities of the New Testament. (W)
- REL 0162—World Religions and Modern Man3—0—3
A survey and comparison of the origins, developments, beliefs, or practices of the major faiths. (SP, SU)

Social Science

Social Science electives may be taken from among any Psychology, Religion, Sociology, Anthropology, Economics, History, Geography and Political Science.

Sociology

- SOC 0101/1101—Family Community 3—0—3
Study of the family and various cultures with emphasis upon the American culture. Family relations including family roles, socio-economic status, cultural deprivations, and the emotional stability of the family are given special attention. (W)
- SOC 0160—Introduction Sociology 3—0—3
An analysis of the society and culture dealing with social organization, control, institution, stratification, and social change. (F)
- SOC 0161—Social Problems 3—0—3
A study of the major social problems of modern society, including family disorganization, minority groups, and problems associated with industrial and urban development. (W, SU)
- SOC 0162—Sociology of the Family 3—0—3
Study of the American family with attention given to courtship, marriage, family relationships and interdependencies, and social cultural stresses emerging from contemporary family life. (SP, SU)

Textile

- TEX 0101—Fundamentals of Textiles 3—0—3
An introduction to textiles, including the history of the industry, description of textile materials and products and their utilization. Presentation of the basic manufacturing systems, materials flow, terminology and calculations.
- TEX 0102—Fiber Sciences 5—2—6
This course emphasizes: the chemical constitution and properties of fiber forming polymers; theories of fiber structure; the relationship between the molecular structure of linear polymers and physical properties of natural and man-made fibers; the principles and methods for producing man-made fibers; the chemical behavior of natural and man-made fibers. (PR: TEX 0101)
- TEX 0103—Yarn Forming Systems 5—2—6
A study of the principles of staple and filament yarn systems and structures. The influence of the manufacturing system and the input materials on product characteristics is established. (PR: TEX 0102)
- TEX 0104—Fabric Forming Systems 5—2—6
A study of the basic fabric forming systems, including nonconventional, weaving and knitting. Emphasis is on fabric construction and geometry. Structures of fabrics and resulting properties are related to raw materials and product performance. (PR: TEX 0102)

Textile

- TEX 0105—Dyeing and Finishing 5—2—6
A comprehensive course designed to familiarize the student with the basic principles involved and the procedures used for the preparation, dyeing, printing and finishing of natural and man-made fibers. Some emphasis is placed upon the chemical nature of dyes and fastness properties, and the chemical nature of finishes used to impart specific end-use properties.

Welding

- WLD 1102—Welding II 5—14—10
The operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment. (W)
- WLD 1103—Welding III 5—16—10
Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and practice in the various positions. A thorough study of such topics as principles of operation, shielding gases, filler rods, process variations and applications, and manual and automatic welding. Practice in welding pipe in fixed position using inert-gas-shield arc welding and metal arc welding. (SP)
- WLD 1104—Welding IV 5—20—12
This course involves pipe welding and certification practices. Designed to provide practice in welding of pressure piping in horizontal, vertical and horizontal fixed position using shielded metal arc welding processes according to Section VIII AND IX of the ASME code. Certification practices involve students practice in welding the various materials to meet certification standards. Students introduced to the various type of test and testing procedures and perform the details of the test which gives adequate information as to the quality of the weld. Type of tests—guided bend, notched bend, and tensile strength test to check the quality of his work. (SU)
- WLD 1105—Welding V 2—13—6
Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of the units. Welding procedures such as practice of puddling and carrying the puddle, running, flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering. Safety procedures are emphasized throughout the course in the use of tools and equipment. (F)

WLD 1106—Welding VI.....	2—13—6
The operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment. (W)	
WLD 1102—Basic Gas Welding	1—3—2
Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver soldering, and flame-cutting methods applicable to mechanical repair work.	
WLD 1101—Welding I	5—20—12
Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of the units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering safety. Safety procedures are emphasized throughout the course in the use of tools and equipment. (F)	
WLD 1107—Welding VII.....	2—13—6
Introduction and practical operation in use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and practice in various positions. A thorough study of such topics as principles of operations shielding gas, filler rods, process variations and applications, and manual and automatic welding. Introduction to pipe welding and basic position pipe welding.	
WLD 1108—Welding VIII	2—13—6
Designed to provide practice in welding of pressure piping in the horizontal, vertical and horizontal fixed position using shielded metal arc welding processes according to Section VIII and IX of the ASME code. The course involves using various tests to check the quality of his weld. Types of tests are: bend, guided bend and tee bend.	
WLD 1111—Auto Welding I	0—3—1
Welding demonstrations by the instructor and practice by the students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice is given for surface welding; bronze welding, silver-soldering, and flamecutting methods applicable to mechanical repair work. (F)	

Welding

Welding

- WLD 1112—Auto Welding II0—3—1
Welding practices on material applicable to the installation of body panels and repairs to doors, fenders, hoods, and deck lids. Student runs beads, does butt and fillet welding. Performs tests to detect strength and weaknesses of welded joints. Safety procedures are emphasized throughout the course. Intended for students in Auto Body Repair. (W)
- WLD 1120—Basic Arc Welding1—6—3
Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver soldering, and flame-cutting methods applicable to mechanical repair work.

College Library

College Library

College Library

Learning
Resources
Center

LEARNING RESOURCES CENTER

The LRC is for everyone; student, instructor, and any other member of the community. The title, "Learning Resources Center" emphasizes the word RESOURCES, and it means that the center provides the services (i.e. information, service, and materials) that will enable an individual, if he wishes, to learn more quickly, with more clarity, and in greater depth.

The center seeks to create a climate conducive to learning with a relaxed atmosphere, personal attention, and meaningful assistance.

As such, the staff works with students and faculty on an individual basis providing resource material that will aid the instructor in the teaching process or the student in the learning process.

Resource material is available in many forms: books, magazines, films, tapes, self-instruction "packages", and others. The LRC has over 22,000 books and subscribes to 165 magazines. As the student becomes acquainted with the LRC, he will realize that a variety of equipment is also there for his use. This includes record and cassette players with earphones for individual or group use, and movie, slide, and filmstrip projectors. Typewriters, dictaphones, adding machines, and rotary calculators are also available. Many persons may wish to use specific services offered by the Learning Resources Center. Among the most common ones are reference assistance, copying service, production of audio-visuals, and self-instruction programs.

I. Reference Service

A. Guides and indexes

1. Readers Guide
2. Social Science and Humanities Index
3. Education Index
4. Biography Index
5. Poetry Index
6. Essay and General Literature Index
7. Subject area dictionaries and encyclopedias

B. IN-WATTS Line and Inter-Library Loan Service

If research material is not available locally, the LRC may use the IN-WATTS Line and Inter-Library Loan service to obtain materials through the network of state, public, college, and university libraries. There is no charge for this service.

Learning Resources Center

Learning Resources Center

II. Copying service

Individuals may make use of the copying machine to reprint material for school, personal, or business use. The copier will produce duplicates of charts, drawings, or printed material from a single sheet or book. Students are advised to examine carefully material prior to copying in order not to violate copyright laws. There is a charge of 10¢ per sheet.

III. Audio-visual production and equipment service

Audio-visual production aids the instructor in providing flexible and varied learning experiences. Such support includes the use of video cameras and tapes, photography, transparencies, slides, tapes, cassettes, and graphic art work. The audio-visual specialist also provides assistance, equipment, and facilities to student representatives of the college newspaper, yearbook, and Student Government Association (SGA).

IV. Self-instruction programs

A study center in the LRC (Campus) and the Learning Center (Tryon) provides ICC students and other individuals of Polk and Rutherford Counties the opportunity to study a wide range of subjects on an individualized, self-instructional basis. The specially prepared study material enables the learner to teach himself with a minimum of assistance from others. A participant can begin at any time throughout the year, set his own study schedule without worrying about absences or competition with others, and remain in the programs as long as he wishes. This may be a matter of a few hours spent reviewing a specific concept (i.e. the multiplication of fractions) or for an extended period of time lasting several months in which the student may master a foreign language or complete his high school studies. Materials are available free of charge and there is no registration charge except for those taking college credit courses.

A. College assistance:

Isothermal students may participate in supplementary or enrichment activities through their own initiative, as a result of the recommendation of an instructor, or for the purpose of fulfilling the study requirements of the Veteran's Administration. Students involved in classroom instruction often discover that self-instruction materials paralleling the classroom lecture can provide them with a greater degree of comprehension. This is better appreciated when the student understands that he or

she may be involved in self-study programs only as long as there is a need. Materials frequently used include basic arithmetic, algebra, economics, English grammar, vocabulary development, and speed reading.

B. College credit self-study courses:

Students may earn college credit by enrolling for self-paced courses offered in the Learning Resources Center. A student who wishes to earn college credit may start course work in several subjects at any time during the quarter. Formal registration for these courses comes at designated times on the College calendar. These programs parallel the material taught in the regular classroom and are monitored by an instructor or an assistant. This program offers the student the advantage of being able to register at any time (open registration), to study at a time that might otherwise conflict with a regular scheduled class, home, or job responsibilities, and set his own pace for completing the course of study. The student is required to register, to pay appropriate fees (see registration procedures), and to take a supervised final examination. Students registering for these courses should have a high degree of self-motivation. Information on subjects offered may be obtained from the Registrar or at the Learning Resources Center.

C. Adult Basic Education Program

The LRC and the LC in Tryon provide study opportunities for individuals at the 6th grade level or above. A variety of adult oriented subjects in reading, writing, arithmetic, science, and social studies are available. As he studies, the student may take advantage of film strips and tapes as well as written material. The material is programmed thus providing the learner with the maximum opportunity for self instruction. Personnel are available to further assist the student as he advances in his study program. Students completing the eighth grade level are encouraged to participate in the Adult High School Program.

Learning Resources Center

Learning Resources Center

D. Adult High School Program

Isothermal Community College, in cooperation with the Polk and Rutherford County School Boards, has developed an Adult High School Program to meet the needs of individuals who previously did not complete their secondary studies. To meet requirements for graduation, a person must complete the nine units of study listed below:

- (1) English 4 units
- (2) Mathematics 1 unit
- (3) Social Studies 2 units
- (4) Science 2 units

A transcript of the student's previous high school studies must be on file at the Learning Lab. Credit for any of the above units is given to the individual for corresponding work satisfactorily completed in prior years. The student has the opportunity to receive further credit for subjects, without study, as a result of knowledge gained through his or her work experience by scoring 50% percentile or more on the Standard Achievement Tests. To enter the program, a person must be over 18 years old, or if younger, have special permission from the Rutherford or Polk County School Superintendent. There is no charge for registration or materials. The student may choose to study at the LRC on the Isothermal Campus or at the Learning Center in Tryon. Each student studies independently of others, and this offers each one the opportunity to arrange his own study schedule and to proceed at his own pace. The diploma earned in this program is valid for students who wish to continue their studies in higher education.

E. General Interest Studies—Self-enrichment courses

There are many courses available in the area of general interest for the adult who wishes to satisfy a specific need or to spend his leisure time learning for self-enrichment. Programmed reviews and refresher materials are available for the high school graduate planning to enter college and to those anticipating taking examinations to qualify for a specific job or license.

The extent of programmed course offerings available to adults of Polk and Rutherford Counties may be obtained from the partial listing of materials presented below:

BUSINESS—Economics, principles of management, typing, business letter writing, stenograph, shorthand, accounting, data processing, and management skills.

ENGLISH—Grammar, building vocabulary, spelling, techniques of writing, useful English, English composition, and vocational English.

FOREIGN LANGUAGE—German, French, and Spanish.

MATHEMATICS—Basic, General, Algebra, Geometry, Trigonometry, Slide Rule, Calculus, and Introductory Descriptive Statistics.

READING—Reading instruction (grades 6-14), Speed Reading, Comprehension, and Vocabulary Improvement.

SCIENCE—General Science, Astronomy, Electricity, Biology, Chemistry, Physics, Anatomy & Physiology, Body Structure & Function, Basic Patient Care, Medication & Mathematics for the Nurse.

SOCIAL STUDIES—U. S. History, World History, the Constitution, How a Bill Becomes a Law, Geography of the U. S., and Civics.

SOCIAL INTEREST—Music, Interior Decorating, Contract Bridge, Nutrition, and Reading & Study Skills, chess and psychology.

Hours:	8:00 - 9:30	Monday - Thursday
	8:00 - 5:00	Friday
Learning Center (Tryon)	12:00 - 9:00	Monday - Thursday

Learning Resources Center

Continuing and Extension Education

The Continuing Education Division is designed to provide educational opportunities for adults who desire to learn the basic skills of reading, writing and arithmetic; to upgrade their capabilities for success on the job; to learn new skills for entry into a new job; or to enrich their lives through arts and crafts.

The division provides training for community service groups such as volunteer fire departments, volunteer rescue crews, ambulance service personnel, and law enforcement officers.

Following is a list of program areas in which courses have been successful. This list is by no means exhaustive. Persons interested in these or any other courses should contact the Continuing Education Division to make their wishes known. A course can be designed to meet any educational need that is shared by a class size group of persons.

Business Education
Cake Decorating
Ceramics
Christmas Arts
Clothing Construction
Crochet
Decoupage
Driver Education
Emergency Medical Technician
Fire Service Training
First Aid
Floral Arts
Hospitality Training

Income Tax
Knitting
Loom Fixing
Oil Painting
Police Training
Real Estate
Small Engine Repair
Supervisory Development Training
Tole Painting
Upholstering
Water Color
Welding
Woodworking

Continuing Education

Programs for The Disadvantaged and Handicapped

Through special funds made available through the Department of Health, Education and Welfare, Isothermal Community College offers occupational training for persons who cannot benefit from regular college offerings because of being handicapped or disadvantaged.

An instructor is provided who goes to the homes of handicapped persons to give training in floral design and technique.

The present program for the disadvantaged is woodworking and cabinet-making taught in a well equipped shop.

These programs attempt to equip individuals with the skills necessary to become gainfully employed or to set up their own businesses.

Adult Basic Education

Adult Basic Education is a program designed to improve a person's ability in reading, writing, and arithmetic. The materials used are designed for adults and the information gained has a practical application to "everyday living." The classes range from the first through the eighth grade. Any adult 16 years of age or older is eligible.

Classes are usually offered in a three-hour session twice a week. Classes are operated on an evening and daytime basis, depending on the need of the student. Whenever feasible, classes are held in the neighborhood where the students live.

Upon completion of the basic instruction, the student is eligible to go to the Learning Lab for further instruction that could lead to entry into the Adult High School Diploma Program.

HRD Program (Manpower)

The HRD (Human Resources Development) Program is presently operating in 41 Community Colleges and Technical Institutes in the state. It is a program dealing primarily with motivation, attitudinal changes and pre-job orientation for the unemployed or under-employed.

There are two components: (1) Adult Education and (2) Human Resources Development. During the eight-week cycle, the student is involved in activities, discussions and counseling which help to improve his self-concept, make him aware of group interaction, help him overcome obstacles to effective communication and develop his job-seeking and job-holding skills. The student is also encouraged to set personal goals and list the steps to be taken to achieve them.

HRD is a cooperative effort of the college, the Department of Labor, the Employment Security Commission and local industry.

COMMUNITY

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STANFORD UNIVERSITY

Register

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Robert W. Conley, III	Director of Placement/Counselor

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Martha Y. Harbison	Assistant Bookkeeper
Judy Jones	Assistant Bookkeeper
Helvi Luckadoo	Bookstore Clerk
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B.A., Furman University, M. Div., Crozer Theological Seminary, Ed.D., North Carolina State University.	
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B.E., Northwestern University	
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B.A., Columbia College, M.A.T., Duke University	
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B.S., Appalachian State University	
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Wesley Henderson	Social Science
B.A., University of Mississippi, M.A., State University of New York	
Charles A. Holcombe, III	Counselor/Director of Financial Aid
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John M. Karriker	Chemistry
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Edward J. T. Lima	Electronics
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Lowery Luckadoo	Welding
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B.A., Lenoir Rhyne College	
Dillard Morrow	Assistant Dean of Instruction
B.S., M.A., Western Carolina University	
Myra L. Nanney	English
B.A., University of North Carolina, M.A.T., Duke University	
Leverett W. Nichols	Police Science
B.Ed., M.Ed., Keene State College.	
Elizabeth Page	Learning Lab Instructor
B.S., Wake Forest College	
John F. Paul	Dean of Student Personnel
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Walter R. Peterson	Industrial Supervision and Management
A.B., The Citadel	
S. Jerry Poole	Mathematics
A.B., M.A.T., Emory University	
Ralph E. Porter	Business Manager
B.A.E., M.Ed., University of Florida	
Geraldine Roberts, R.N.	Nursing
Diploma, Rutherford Hospital School of Nursing	
William R. Rogers	Social Science
B.S., M.A., University of Tennessee	
Gary Shipley	Biology
B.S., M.S., East Tennessee State University	
Janet F. Smith	Physical Education
B.S., M.A., Austin Peay State University	

- Eugene McKenzie Smith, Jr. Director of Audio-Visual Production
 A.A., Southeastern Community College, B.S., Pembroke State University, M.A., Appa-
 lachian State University
- James D. Turner Applied Science
 B.S., Western Carolina University, M.A., East Carolina University
- Neilan Underwood Electronics
 Electrical Technology U.S. Dept. of Education, U.S. Air Corps Technical Institute, Refrigera-
 tion and Air Conditioning Training Corporation
- Ronald Venhuizen Social Science
 A.B., Hope College, M.A., Arizona State University
- Linda Waters Early Childhood Education
 B.S., M.A., Appalachian State University
- David H. Whisenant Business
 B.S., M.A., Appalachian State University
- Carl Williams Director of Learning Resources Center
 B.S., M.S., M.A., Louisiana State University
- Mary Woolwine, R.N. Nursing
 Diploma, Johnston Memorial Hospital of Nursing
- Wilbur M. Wright Registrar
 B.S., M.A., Appalachian State University

Correspondence Directory

For Questions About:

Admissions, Records, and Transcripts

Athletics

Business Affairs

College Policy

Continuing and Adult Education

Financial Aid

Instructional Programs

Learning Resources Center

Public Affairs

Student Welfare, Placement, and
Veterans Affairs

Summer School

Write or Telephone:

W. M. Wright
Director of Admissions and Registrar

Ronald C. Venhuizen
Athletic Director

Ralph E. Porter
Business Manager

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Edward L. Barrier
Dean of Continuing and
Extension Education

Charles A. Holcombe, III
Counselor and Financial Aid Officer

David E. Daniel
Dean of Instruction

Carl W. Williams
Director of Learning Resources
Center

Stover P. Dunagan
Administrative Assistant to the
President

John F. Paul
Director of Student Services

W. M. Wright
Registrar

The address for all offices is:

Isothermal Community College
P. O. Box 804
Spindale, North Carolina 28160

The college telephone number is:

(704) 631-3636

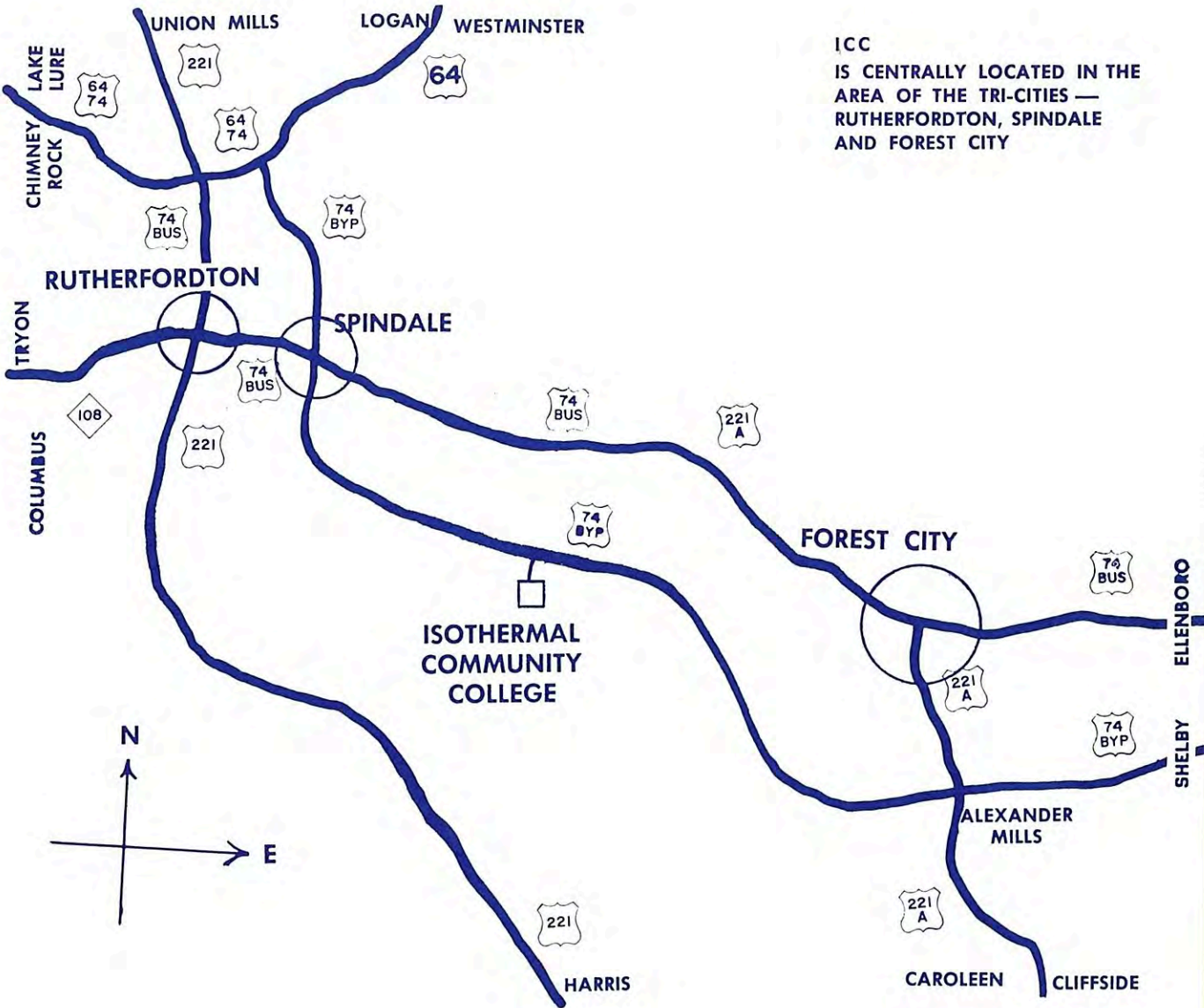
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