

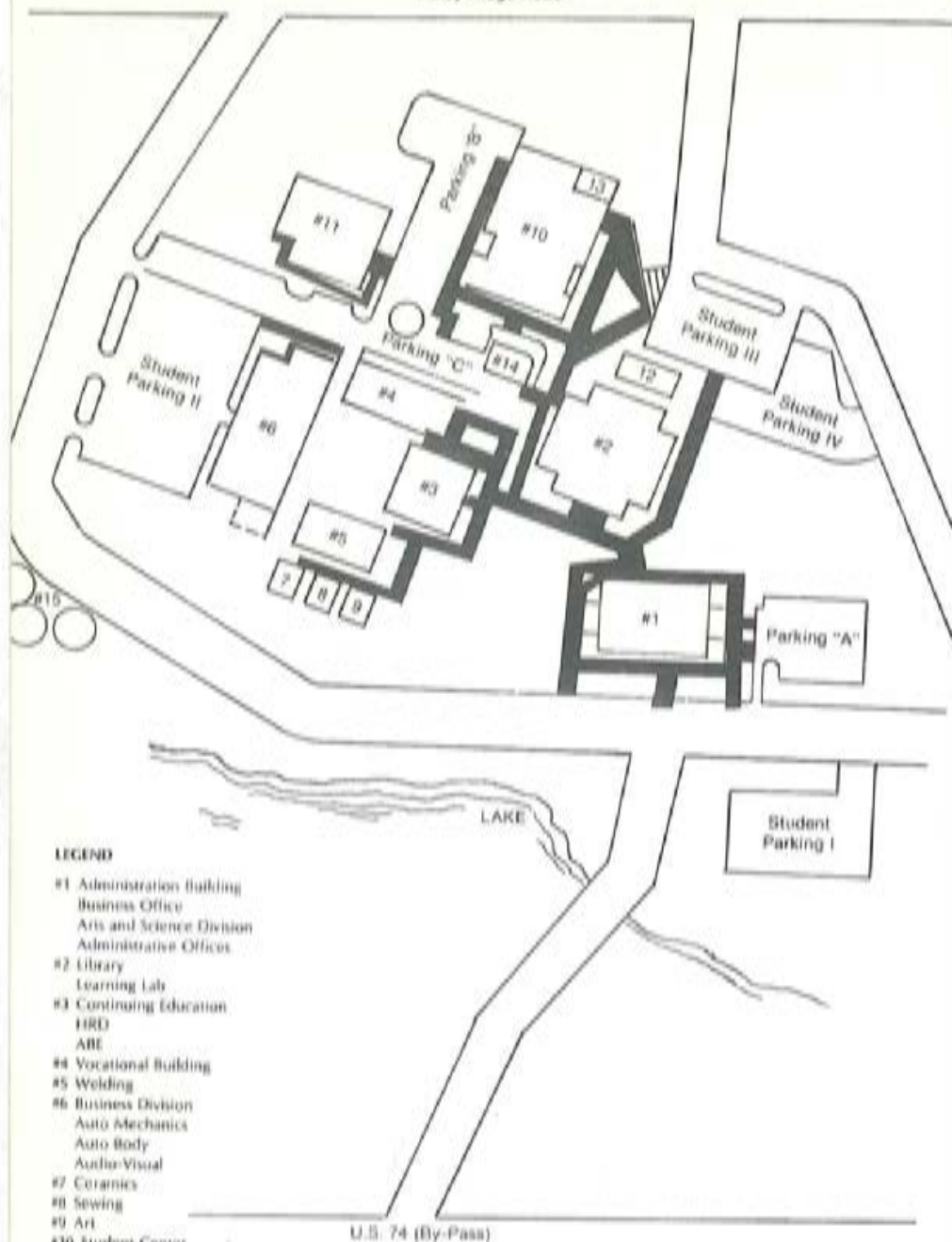
Isothermal
Community
College



Catalog

1980-1981

Piney Ridge Road



LEGEND

- #1 Administration Building
Business Office
Arts and Science Division
Administrative Offices
- #2 Library
Learning Lab
- #3 Continuing Education
HRD
ABE
- #4 Vocational Building
- #5 Welding
- #6 Business Division
Auto Mechanics
Auto Body
Audio-Visual
- #7 Ceramics
- #8 Sewing
- #9 Art
- #10 Student Center
Physical Educ. Bldg.
Student Personnel Offices
Life Sciences Division
- #11 Occupational Building
Applied Science Division
- #12 Tennis Courts
- #13 Cosmetology
- #14 Amphitheater
- #15 Picnic Area

U.S. 74 (By-Pass)

Isothermal Community College

GENERAL CATALOG 1980-81



Spindale, North Carolina 28160
704-286-3636

VOLUME XI

JANUARY, 1980

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MESSAGE FROM THE PRESIDENT

The founding president of Isothermal Community College, Fred J. Eason (1965-1978), expressed succinctly the guiding principles of the college:

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

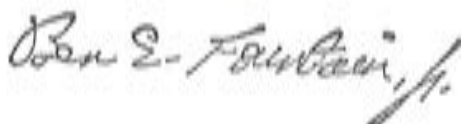
WE BELIEVE that no interested and capable student should be denied the privilege of attending a college or vocational school of the highest quality.

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.

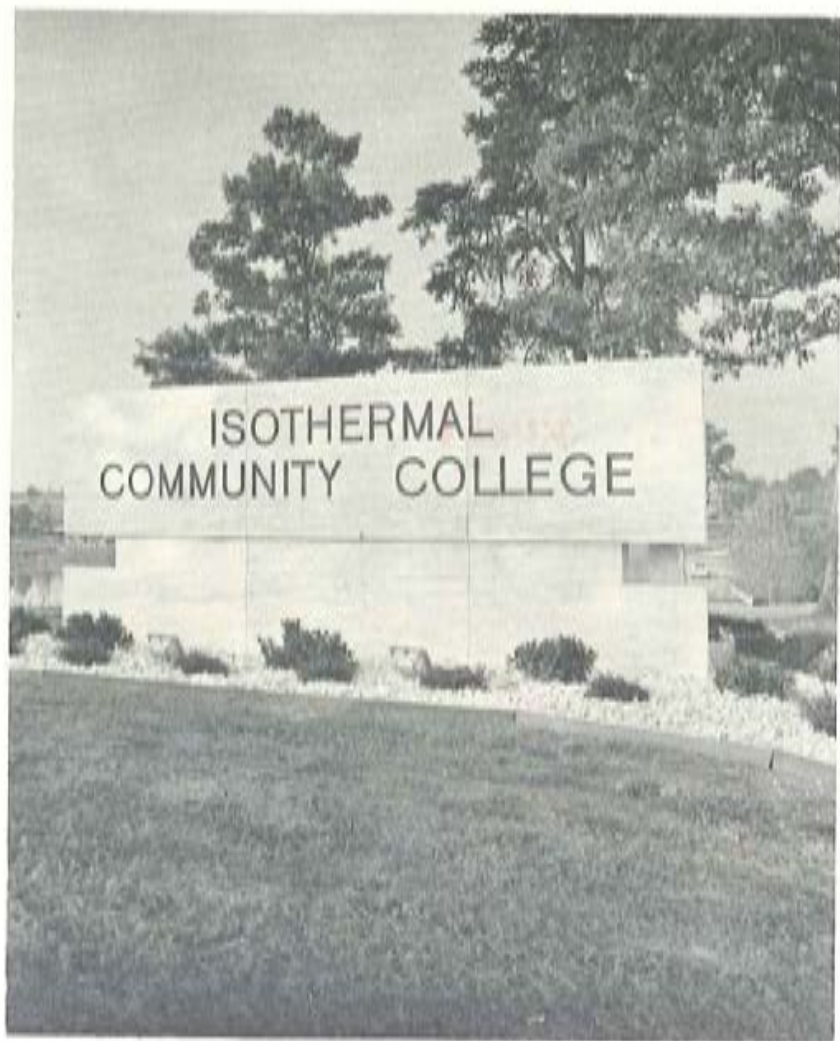
We reaffirm our commitment to those principles. We assert anew our determination to seek excellence in skill training and education for those citizens choosing to enter our open door to learning.



Ben E. Fountain, Jr.

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Isothermal Community College
1980-81 Calendar

FALL QUARTER (56 days)

Sept. 2	Tuesday	Faculty Workshop
Sept. 3	Wednesday	Freshman Orientation
Sept. 3, 4	Wednesday, Thursday	Registration
Sept. 5	Friday (8:00 a.m.)	First Day of Classes
Sept. 11	Thursday	Last Day to Register or Add
Sept. 11	Thursday	Last Day to Drop With "DR"
Oct. 5	Sunday	Founders' Day
Oct. 13-17	Monday-Friday	Mid Term Week
Oct. 24	Friday	Last Day to Drop With "WP"
Nov. 19, 20, 21	Wed., Thurs., Friday	Final Exams
Nov. 21	Friday (4:30 p.m.)	Thanksgiving Holidays Begin
Nov. 24	Monday (12:00 Noon)	Faculty Checkout

WINTER QUARTER (55 days)

Dec. 1	Monday	Registration
Dec. 2	Tuesday	First Day of Classes
Dec. 8	Monday	Last Day to Register or Add
Dec. 8	Monday	Last Day to Drop With "DR"
Dec. 19	Friday (4:30 p.m.)	Winter Holidays Begin
Jan. 5	Monday (8:00 a.m.)	Classes Resume
Jan. 19-23	Monday-Friday	Mid Term Week
Jan. 30	Friday	Last Day to Drop With "WP"
Feb. 26, 27 and	Thursday, Friday and	Final Exams
	March 2 Monday	Final Exams
March 3	Tuesday (12:00 Noon)	Faculty Checkout

SPRING QUARTER (55 days)

March 5	Thursday	Registration
March 6	Friday	First Day of Classes
March 12	Thursday	Last Day to Register or Add
March 12	Thursday	Last Day to Drop With "DR"
April 13-16	Monday-Thursday	Mid Term Week
April 16	Thursday (10:00 p.m.)	Spring Holidays Begin
April 27	Monday (8:00 a.m.)	Classes Resume
May 1	Friday	Last Day to Drop With "WP"
May 26, 27, 28	Tues., Wed., Thurs.	Final Exams
May 29	Friday (12:00 Noon)	Faculty Checkout
June 2	Tuesday	Graduation

SUMMER QUARTER (50 days)

June 4	Thursday	Registration
June 5	Friday	First Day of Classes
June 11	Thursday	Last Day to Register or Add
June 11	Thursday	Last Day to Drop With "DR"
July 3	Friday	Independence Holiday Begins
July 6-10	Monday-Friday	Mid Term Week
July 17	Friday	Last Day to Drop With "WP"
Aug. 13, 14	Thursday, Friday	Final Exams
Aug. 17	Monday (12:00 Noon)	Faculty Checkout

1ST SUMMER SESSION (24 days)

June 4	Thursday	Registration
June 5	Friday	First Day of Classes
June 9	Tuesday	Last Day to Register or Add
June 9	Tuesday	Last Day to Drop With "DR"
June 26	Friday	Last Day to Drop With "WP"
July 3	Friday	Independence Holiday Begins
July 9	Thursday	Final Exams

2ND SUMMER SESSION (25 Days)

July 10	Friday	Registration
July 13	Monday	First Day of Classes
July 15	Wednesday	Last Day to Register or Add
July 15	Wednesday	Last Day to Drop With "DR"
July 31	Friday	Last Day to Drop With "WP"
Aug. 14	Friday	Final Exams
Aug. 17	Monday (12:00 Noon)	Faculty Checkout

ISOTHERMAL COMMUNITY COLLEGE

BOARD OF TRUSTEES APPOINTED BY COUNTY BOARD OF EDUCATION

Mr. James Tanner (Chairman)—Rutherfordton, NC
Mr. Ivy Cowan—Spindale, NC
Dr. Douglas Pearson—Forest City, NC
Mrs. Robert Spratt—Caroleen, NC

APPOINTED BY COUNTY COMMISSIONERS

Mr. Jack Buchanan (Vice-Chairman)—Forest City, NC
Mr. Don H. Lovelace—Forest City, NC
Mr. Joe A. Miller—Cliffside, NC
Mr. Clyde Tomblin—Spindale, NC

APPOINTED BY THE GOVERNOR OF NORTH CAROLINA

Mr. William DeBrule—Forest City, NC
Mrs. Janie Callahan—Rutherfordton, NC
Mr. Robert Hawkins—Cliffside, N.C.
Dr. Ernest Yelton—Rutherfordton, NC

ADMINISTRATIVE OFFICES

Office of the President

Ben E. Fountain, Jr. President
Dillard L. Morrow Senior Vice President
John F. Paul Vice President for Student Affairs
Catherine Jolley Controller
Ann Freeman Public Information Officer
Glenda Scruggs Secretary to President
Fred J. Eason President Emeritus

Office of the Senior Vice President

Dillard L. Morrow Senior Vice President
Trevia E. Godfrey Administrative Assistant
Carl Biggerstaff Research Technician
Carl Williams Director, ICC Polk Campus
Faye McIntyre Secretary, ICC Polk Campus
Wilbur Wright Director, Admissions/Evening Programs
Peggy Head Secretary, Director Admissions/
Evening Programs

Royce Ellis	Director of Library
Mike Greene	Library Technician
Linda Wease	Library Technician
Shirley Holland	Library Technician
Mack Smith	Audiovisual Specialist
Mary Ann Head	Coordinator, Learning Lab
Edward Barrier	Dean of Continuing Education
Ann Coffield	Director of Adult Services
Faye Johnson	Administrative Assistant, Dean of Continuing Education
Marion Michalove	Director, Human Resources Dev. Program
Barbara Blue	Secretary, Human Resources Dev. Program
Linda Porter	Job Placement Specialist, Human Resources Development Program
Linda Hankins	Coordinator, ABE and Extension High School Program
Mike Croussore	Chairman, Life Science Division
Debbie Holland	Secretary, Life Science Division
John Karriker	Chairman, Arts and Sciences Division
Joan Ross	Secretary, Arts and Sciences Division
Jim Turner	Chairman, Applied Science Division
Helen Davis	Secretary, Applied Science Division
Helyn Lowery	Chairman, Business Division
Lujuanna Clayton	Secretary, Business Division
Vivian Sitton	Coordinator, Individualized Instruction Center
Thomas H. Callison	Director, Cooperative Education
Denise Brooks	Secretary, Cooperative Education
Donna Harrison	Director, Special Services Program
Libby Sisk	Secretary, Special Services Program
Charles Francis	Counselor, Special Services Program
Hubert Bailey	Maintenance Supervisor

Office of Vice President for Student Affairs

John F. Paul	Vice President for Student Affairs
Gwen Goode	Secretary, Vice President for Student Affairs
Charles Holcombe	Registrar/Director of Financial Aid
Myra Morgan	Secretary, Registrar/Assistant, Director of Admissions
Marilyn Shore	Counselor/Dir. of Testing
Robert Conley	Counselor/Director of Placement
Karen Clifton	Secretary, Counselors
Jim Garren	Director of Community and Recreational Activities

Controller

Catherine Jolley	Controller
Irene Tucker	Bookkeeper
Gerri Day	Bookkeeper
Dianne Clayton	Bookkeeper
Helvi Luckadoo	Bookstore Manager
Margaret Morrison	Duplicating Technician

INTRODUCTION

History Of The College

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 during the 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.

Purpose and Objectives

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.
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
 - 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 each of the following:

Southern Association of Colleges and Schools
North Carolina State Board of Education
North Carolina State Board of Cosmetic Arts
North Carolina State Board of Nursing

Evening School

The Evening School is an extension of the day program. The major aims are the same as stated in the purpose and objectives for the college.

The college offers evening credit programs that lead to the Associate of Arts Degree, the Associate of Applied Science Degree, and the Vocational Certificate. A student can complete the requirements for the Associate Degree in approximately eight quarters and the Vocational Certificate in four quarters.

The evening programs are normally offered from 5:30 p.m.-10:00 p.m., Monday through Thursday. Course schedules for the evening classes are published each quarter and are available upon request from the Evening School Office or the Student Personnel Office.

Office Hours

The administrative offices of the College are open Monday through Friday from 8:00 a.m. to 4:30 p.m.

Isothermal Community College— Polk County

The college has expanded study opportunities in Polk County by offering a wider selection of credit and non-credit courses. Subjects now available include selected credit courses in college parallel and occupational studies, the Adult Basic Education and High School Diploma programs, and Continuing Education non-credit courses. A modern and expanded study facility provided by Polk County provides space in the old St. Luke's Hospital for individualized study, classes and workshops.

Information about college activities in Polk County may be obtained by visiting the center at St. Luke's or by calling 859-6744.

Nondiscrimination Statement

Isothermal Community College is dedicated to equality of opportunity for its staff, students, and Community. It is the policy of Isothermal Community College to be fair and impartial, not practicing or condoning discrimination in any form, against students, employees, and applicants on the grounds of race, color, religion, age, sex, national origin, or handicap. Isothermal Community College is committed to this policy.

Isothermal Community College supports the protection available to members of its Community under all applicable Federal Laws including Title VI and Title VII of the Civil Rights Acts of 1964, Equal Pay Act of 1963, Title IX of the 1972 Education Amendments, Executive order 11246 as amended by 11375, Title VII (section 799A) and Title VIII (section 845) of the Public Health Service Act, Age Discrimination Act, and the Rehabilitation Act of 1973.

Any member of the Isothermal Community College Community believing they have been discriminated against or desiring more information concerning these provisions should contact:

Peggy Blanton, Chairperson
Affirmative Action/Title IX Coordinator
Isothermal Community College
P. O. Box 804
Spindale, NC 28160

Visits To The Campus

Visitors are always welcome. An information desk is maintained on the main floor of the administration building Monday through Friday. The receptionist will contact a member of the Student Personnel Staff who provide both general information and a tour of the campus.

You may arrange a tour of the campus by writing or calling the Student Personnel Office. When writing, please specify the time and the number of persons in your party.

ADMISSIONS

General Admission Requirements For Credit Courses

Isothermal operates 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. Transcript(s)—high school and college (if applicable).
3. Take college placement battery.
4. Interview (review of test scores).

Vocational Applicants:

1. A completed application for admission.
2. High School transcript (if applicable).

Practical Nursing applicants must also take the Nursing Test, submit a list of three references other than family, submit a physical examination record completed by family physician, submit transcripts, and be interviewed by the nursing staff. All applicants must have completed the ninth grade or the equivalent.

Paraprofessional Child Care applicants must have a high school diploma or the equivalent, complete the college placement battery and be interviewed for review of test scores.

Cosmetology applicants must have completed the ninth grade. They must meet the requirements for vocational applicants. Students accepted in the cosmetology program may enroll at the quarterly registration or at designated times throughout the quarter.

Veteran and veterans dependents receiving veterans educational benefits, must provide transcripts (high school and college, if applicable) of all education beyond the seventh grade level.

Admission Procedure For Prospective Foreign Students

In addition to the admission requirements above, all students entering the country on a 1-20 Visa are required:

1. to receive a satisfactory score of 500 or better on the Test of English as a Foreign Language (TOEFL)
or
2. to complete the English 109 course at an English Language School or a course comparable to ENG 0109.

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 for admission. Transfer applicants must also

meet the general 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 if their courses do not have prerequisites determined by test scores.

TRANSIENT STUDENTS. Transient students who are enrolling at Isothermal Community College need only to submit an application for admission and a letter granting approval to attend Isothermal from the college they are attending or plan to attend. Transient students are admitted for only one quarter at a time.

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.

READMISSION. Any student having been suspended for disciplinary reasons from the College must submit an application for readmission to the Director of Admissions.

SPECIAL CREDIT. High school and college graduates who are not currently attending a college may enroll in courses at Isothermal Community College. If the courses do not have a prerequisite that is determined by test scores, these students will only be required to complete an application. Upon the accumulation of 15 quarter hours of credit the student must meet General Admission Requirements.

After 15 quarter hours of credit have been earned, a student may continue to enroll in courses solely for self-enrichment without declaring a degree program. Hours earned beyond the 15 hour limit may not be used at a later date for credit toward degree requirements.

High School Enrollment

Selected high school students will be admitted to appropriate courses at Isothermal Community College upon the recommendation of the Rutherford County Superintendent of Public Instruction or his designee. Selected high school students may enroll in credit or non-credit courses and will pay the regular tuition and fees.

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.

Testing

PLACEMENT TESTS. The following tests are given to all applicants applying for the college parallel, technical, Early Childhood and Practical Nurse Education Programs. The tests are used only for placement purposes.

1. Nelson-Denny Reading Test I.C.C.
2. I.C.C. Math Placement Test

G.E.D. The General Educational Development Program (G.E.D.) test is available 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 Diploma Equivalency will be awarded. Isothermal accepts the North Carolina Certificate from applicants desiring to enter the College in either the college parallel or technical division. By reciprocal agreement the college accepts certificates from other states.

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. A \$5 fee is charged for administering the G.E.D.

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, faculty, the secretarial staff, and various student leaders. Orientation attendance is required of all new students.

ACADEMIC PROCEDURES

Regulations and Requirements

In publishing these regulations, the College does not recognize any implied contract as having validity beyond the succeeding academic year. The President reserves the right to make changes in curricula and in regulations when in his judgment such changes are for the best interest of the students and the College. Ordinarily a student may expect to receive a degree by meeting the requirements of a curriculum as specified in the catalogue currently in force when he first entered the College, or in any one subsequent catalogue published while he is a student; but the College is not obligated to fulfill this expectation or to offer in any particular year a course listed in the catalogue.

Each student is responsible for observing the procedures, regulations, and requirements of the College as they are announced here and in other official College publications. This section sets forth some of the requirements and regulations which are of particular concern to undergraduates, but it is not intended to constitute a complete list of all such regulations and requirements. Unless otherwise stated, these regulations uniformly govern the academic progress of the student from his first year in the College through the final quarter. It must be emphasized that the staff of the College will gladly assist any student with details of his program or other academic problems, but that such assistance does not relieve any student of his individual responsibility for meeting the requirements and observing the regulations of the College.

Registration

A. General

All students are required to register in accordance with the procedure established for the current year. A student who registers later than the time designated for registration must pay an additional fee of \$5 for delayed registration. If the delay results from circumstances clearly beyond the student's control an appeal may be made in writing to the Controller.

Registration for credit for any course is limited to the first five days of instruction unless the late registration is approved by the instructor of the course and the Dean of Instruction. Changes in registration are limited to the same five day period and must be made in accordance with the established procedure, which requires approval of the faculty adviser.

The college operates on the quarter system. Registration dates, and drop/add dates for the four quarters—Fall, Winter, Spring, Summer are listed in College Calendar.

Deficiency List—Students are responsible for obtaining registration clearance for unpaid fines from previous quarters prior to registration.

Program Changes

A student desiring to change programs requests a Division Change Sheet (DCS) from a counselor or Evening Director as appropriate. The additional instructions are contained on the Division Change Sheet and are self explanatory.

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, Evening Director, or Director, Polk County Branch.
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.
7. Students who drop during the first 10 calendar days following registration date, and who are anticipating a tuition refund, must submit reasons for dropping in writing.

Academic Probation and Suspension

Probation. A student performing below the minimum satisfactory level as determined by the schedule detailed below for any quarter or a Licensed Practical Nursing student with a grade of "D" in a health-related course, including prerequisites, will automatically be placed on academic probation status for the following quarter, and

Suspension. A student, at the end of the academic probation quarter, who has reached a QPA which falls below the minimum satisfactory level as shown in the schedule detailed below to remove the probation, will automatically be suspended, or any Licensed Practical Nursing student receiving an "F" or a second "D" grade in a health-related course will be suspended from the respective program.

The Quality Point Average Schedule is:

Associate of Arts Degree Associate of Applied Science Degree

Cumulative Qtr. Hrs. Attempted	QPA
6-25	1.50
26-40	1.70
41-60	1.90
61-85	1.95
85-95	2.00
96-more	2.00

Diploma

Cumulative Qtr. Hrs. Attempted	QPA
6-25	1.50
26-40	1.65
41-60	1.80
61-more	2.00

Length of Suspension. All academic suspensions are for a minimum of one quarter except for those students enrolled in a curriculum in which the subject matter is taught in specific quarters and not repeated until a year later.

Appeal. A suspended student has the right to appeal his/her suspension through the following procedure. The suspended student must be prepared to present a compelling case by showing a justifiable reason for his/her poor academic standing or by demonstrating QPA computation error. The student must initiate his/her appeal by filing a written request for review of the suspension with a counselor. The counselor will advise the Dean of Students who will take appropriate steps to establish a hearing for the suspended student by the Admissions and Continuation Committee.

GRADE APPEALS. A student, after conferring with the instructor concerned, may present in writing to the department chairman an appeal from a course grade. No appeal may be made after the last day of classes of the next succeeding regular quarter. The department head will refer the appeal to the Dean of Instruction. No change of grade will be made except as a result of the Dean of Instruction's decision, which is final.

Student Classifications

Freshman—Earned less than 45 credit hours

Sophomore—Earned 45 credit hours or more

Part-time—Enrolled for less than 12 credit hours

Academic Load	Maximum
College Parallel	19 credit hours
Vocational	21 credit hours
Technical	21 credit hours

Approval from the Dean of Instruction is required to register for more than the maximum hours.

Repeating Courses

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. When a course has been repeated the highest grade will be counted.

Class Attendance

Regular class attendance is a student obligation, and a student is responsible for all the work, including tests and written work, of all class meetings. No right or privilege exists that permits a student to be absent from any given number of class meetings.

All instructors establish their own attendance policy for the class, publish this for their students and explain this policy in full to their students on the first day of class, and explicitly include in said policy *the relationship of absences to grades*.

A student must receive a grade of "F" if he fails to maintain contact for fourteen calendar days and has to be administratively withdrawn.

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.

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	Excellence	4 per quarter hour
B	Above Average	3 " " "
C	Average	2 " " "
D	Below Average	1 " " "
F	Failed	0 " " "
WP	Withdrawn Passing	0 " " "
WF	Withdrawn Failing	0 " " "
I	Incomplete	0 " " "
Y	No Credit—Audit	0 " " "
S	Satisfactory	" " "
U	Unsatisfactory	" " "
P	*Progress	" " "

To obtain credit, a student must repeat all courses resulting in the award of "0" quality points.

*"P" (PROGRESS) may not be awarded to veterans nor to veterans dependents receiving V.A. educational benefits.

Incomplete Policy

A grade of "I" is assigned where the course work is incomplete. This grade must be removed before the end of the following quarter, or the grade automatically becomes an "F" on the permanent record. Instructors may extend the time for removing the incomplete by written notification to the registrar.

All grades of "I" are computed on the permanent record as an "F" until and unless they have been made up.

Auditing Courses

Students who wish to audit courses must register through regular channels. Auditors receive no credit but are encouraged to attend classes regularly and participate in class discussions. Auditors will be charged the same fee as students taking courses for credit. AN AUDIT CANNOT BE CHANGED TO CREDIT OR CREDIT TO AUDIT AFTER THE DEADLINE FOR ADDING COURSES.

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 during the quarter and maintain a 3.25 quality point average for the quarter.

COURSE CHALLENGE POLICY. Any student may petition through the Division Chairman for permission to challenge a course through a comprehensive exam for credit. Only those courses for which tests have been developed and have been filed in the Division offices may be challenged. 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. A course may be challenged only once.

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, or Evening Director.

2. Drops or adds must be approved by the faculty advisor and instructor. (No one will be allowed to add or change sections after the last day to register.)
3. Change of sections must be approved by the instructor(s) and re-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. The grade "WP" cannot be awarded past the deadline, generally one week after mid-quarter, unless approved by the Dean of Instruction.

GRADUATION

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 apply 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.

GRADUATION. Students are expected to file graduation applicants with the Registrar's Office at least one quarter preceding the completion of degree requirements. Commencement exercises to award degrees and diplomas to students in respective divisions are held at the conclusion of the Spring Quarter. The specific date of the commencement exercise is listed in the College Calendar in the front of this catalog. All students who have completed degree requirements since the previous commencement are expected to participate in the exercises unless excused in writing by the Dean of Instruction. Students should submit their excuse in writing at least one month in advance of the commencement exercise.

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 3.50 to 3.99 will be graduated with Honors.

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.

TRANSCRIPT OF RECORD

The transcript is a statement of official academic record while attending this College. In every transcript full mention will be made of academic probation or suspension. The College does not release an official transcript unless tuition, fees, and other obligations due the College have been paid. One transcript is given free. Thereafter a \$1.00 fee is charged for each transcript.

A statement of honorable dismissal will not be granted to students whose conduct and character would not entitle them to remain in the College.

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.

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 CENTER. The Student Center exists as a place for students to relax and to recreate. In addition to the lounge, the complex consists of a game room, television area, and dining area, where food service is available. Offices for the Student Government Association, the Yearbook and the Student Newspaper are adjacent to the lounge.

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.

MAIL. The Office of Student Personnel Services distributes mail to the students, student activities, and clubs.

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 vocational 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.

HOUSING. The College does not provide living accommodations for students. A list of available housing is prepared annually to assist 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.

HEALTH SERVICES. Each student is asked 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, and parking. Inter building movement by wheelchair is difficult.

There is no infirmary on the campus, first aid supplies are maintained in shop areas and at secretaries' desks in each building. In all cases involving serious illnesses or accidents, the next of kin will be notified immediately.

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.

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 office of Student Personnel Services will assist in completing the Veterans Administration application, and will submit the required Certification of Enrollment for each student.

Veterans Administration educational benefits are authorized in accordance with credit or contact hours established by the Veterans Administration and are listed below:

Courses Leading To A Standard Degree

College Parallel and Technical

Full time	12 or more quarter hours of credit
¼ time	9-11 quarter hours of credit
½ time	6-8 quarter hours of credit

Courses Not Leading To A Standard Degree

Vocational Programs

Full time	22 clock hours
¼ time	16-21 clock hours
½ time	11-15 clock hours

Veterans and other eligible persons certified to the Veterans Administration for Educational Benefits who fail to maintain satisfactory progress as defined in the Academic Probation and Suspension Section of this catalog, will have their VA educational assistance benefits terminated. Attendance and conduct for all students, including veterans, is addressed in other portions of this catalog.

The veterans coordinator and/or faculty advisor will assist students with academic matters that affect VA Educational Benefits; however, the final responsibility for compliance with VA educational directives remains with the student.

STUDENT ACTIVITIES

The College encourages student participation in student organizations and activities. The following are available on campus:

STUDENT GOVERNMENT ASSOCIATION. All students of the College who pay a student activity fee 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 an ex officio member of the Board of Trustees and is a voting member of all college committees, including the President's Administrative Council.

The following clubs and activities are chartered on the campus:

- Afro-American Club
- Bible Club
- Cheerleaders
- College Singers
- Future Secretaries Association
- Good Earth Ecology Club
- "I" Club
- Interclub Council
- Intramural Athletics
- Patriot Toastmasters Club
- Phi Beta Lambda
- Phi Theta Kappa
- Publications—Sentinel (Yearbook)
Patriot (Newspaper)
- Student Cosmetology Association

INTERCOLLEGIATE ATHLETICS. The College offers athletics on the intercollegiate level for men/women in basketball, golf, and tennis. Isothermal Community College is a member of the NJCAA and the Western Tarheel Conference.

SCHOOL COLORS: Red, White and Blue

SCHOOL MASCOT: Patriot

GENERAL COLLEGE REGULATIONS & POLICIES

The personal conduct of the college student is subject to the moral and legal restraints found in any law-abiding community.

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.

STUDENTS' RIGHTS. It is the duty of the President to exercise full authority in the regulation of student affairs and in matters of student discipline in the institution. Delegation of this authority is normally made to the Vice President for Student Affairs. Never-the-less, it is the duty of the President to insure to every student the right of due process and fair hearing, the presumption of innocence until found guilty, the right to know the evidence and to face witnesses testifying against him and the right to such advice and assistance in his own defense as may be allowable under the regulations of the College. In those instances where denial of any of these rights is alleged, it shall be the duty of the President to review the procedures of the disciplinary hearing.

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.

TRAFFIC REGULATIONS

Faculty, staff and visitors parking areas are shown on the Campus Map (inside cover) as Parking "A" "B" and "C". These two areas, and a small portion in front of Building #6 (Student Parking II) have yellow parking lines with reserved numbers. Students are asked not to park in these reserved spaces.

STUDENT PARKING. Student parking areas I, II, III, and IV have sufficient parking to accommodate all vehicles driven by students. At times, the student may not be able to use the parking area most convenient, and will have to park in a student area more removed

from one's designation. Students are required to park in the assigned parking areas. Parking along the roadways and in the staff and faculty parking spaces is prohibited.

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. and 6:00 p.m.—8:00 p.m. Monday through Thursday, closed Friday.

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.

Used books will be purchased by the bookstore on registration day each quarter, 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.

STUDENT IDENTIFICATION CARDS

Permanent Student Identification Cards are issued without charge to each student who enrolls for 9 or more quarter hours and pays the Student Activity Fee. Students who enroll for less than 9 quarter hours may purchase a permanent ID card by paying the activity fee.

This permanent ID card will admit students to social, cultural, educational and athletic events sponsored by the school. Lost ID cards may be replaced in the Student Personnel Office. There will be a charge for the replacement.

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 cannot 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.

Tuition charges for all programs are as follows:

	In-State	Out-of-State
12 qtr. hours or more*	\$39 per qtr.*	\$198 per quarter
Less than 12 qtr. hours*	\$3.25 per qtr. hr.	\$16.50 per qtr. hr.
Activity Fee		
Fall & Winter Quarters	\$10 per quarter	\$10 per quarter
Spring quarter	\$ 8 per quarter	\$ 8 per quarter

*Tuition charges are subject to change by the North Carolina Legislature.

LATE REGISTRATION FEE. A \$5 late registration fee is charged all students who register after registration day.

STUDENT ACTIVITY FEE. A student activity fee of \$10, \$10, \$8 is charged each of the first three quarters, Fall, Winter, and Spring respectively for students registering for *nine hours* or more on the Isothermal Community College Spindale campus. Enrollees in Polk campus courses, mini courses, and other off campus courses will not be charged the Student Activity Fee. Any student who is not required to pay the fee can, however, elect to do so if they desire. 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. Students are advised that without the activity card admission charges may be assessed at certain student activity functions.

RESIDENCE STATUS FOR TUITION PAYMENT

To qualify for in-state tuition a legal resident must have maintained his domicile (one's permanent dwelling place of indefinite duration) in North Carolina for at least 12 months immediately prior to his classification as a resident for tuition purposes. The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant.

SENIOR CITIZENS. North Carolina residents 65 years of age and older shall be exempted from the payment of curriculum tuition and extension registration fees in accordance with Chapter 981 of the 1977 Session Laws. A \$5 late registration fee will be charged all senior citizen students who register after registration day.

REFUND POLICY. Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within 10

calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered after that time. Tuition refunds will not be considered for tuition of five dollars (\$5) or less, except if a course or curriculum fails to materialize, all the students' tuitions shall be refunded.

ACCIDENT INSURANCE. Accident insurance is offered 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.

FINANCIAL ASSISTANCE PROGRAM

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 Family Financial Statement (FFS) of the American College Testing Program. This financial aid application is 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.

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 \$18,000 (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 non-profit 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 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.

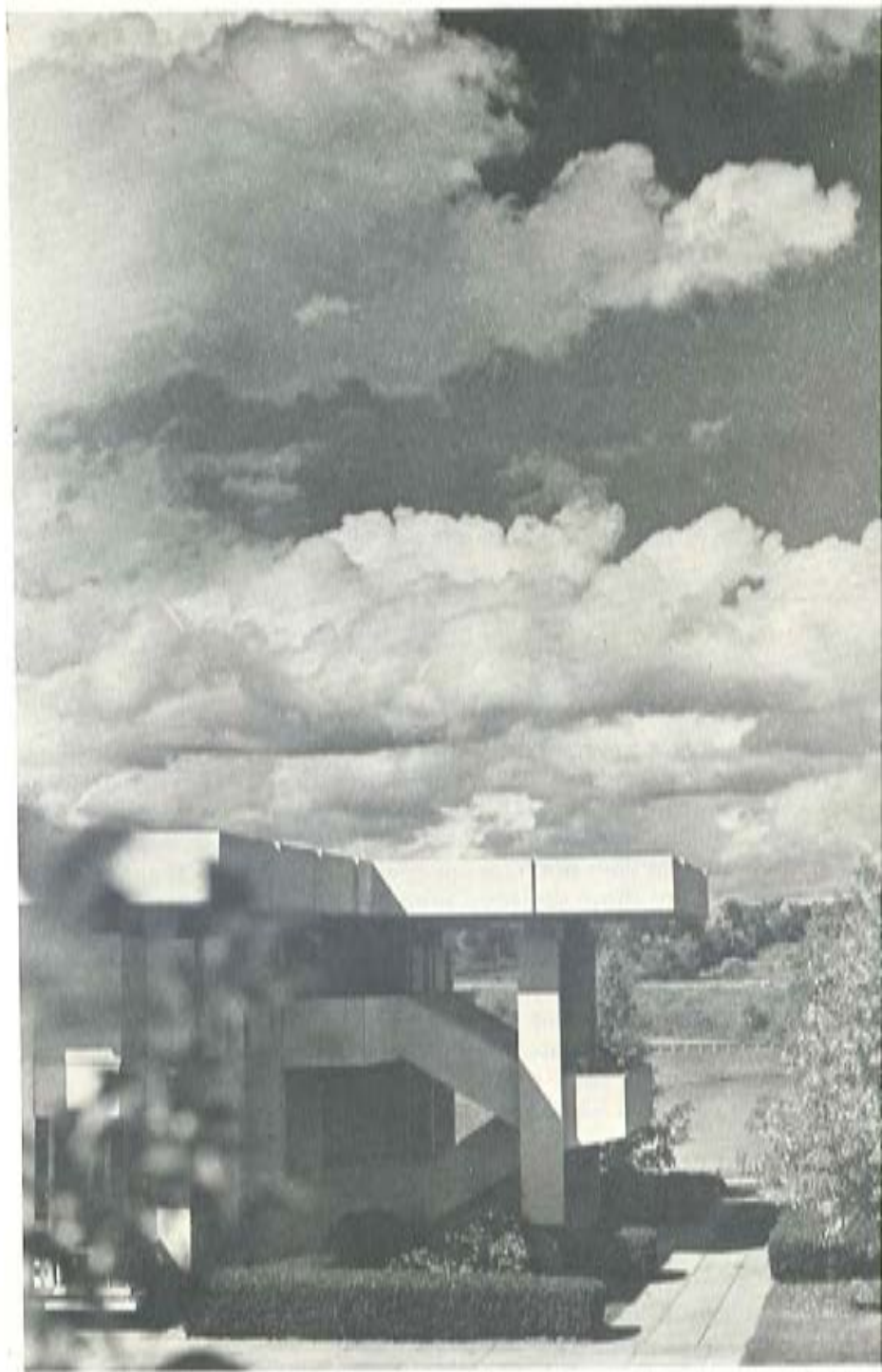
STUDENT EMERGENCY LOAN FUND. The Student Government Association has established a loan fund to assist students having a minor financial crisis by providing monies that will enable the student to continue his education. To be eligible, students must be *enrolled* as a full time curriculum student in good standing with a grade points average that will enable the student to graduate.

NORTH CAROLINA STUDENT INCENTIVE GRANTS (NCSIG). This new grant program, NCSIG, is funded jointly by annual appropriations from the North Carolina State Legislature and the Federal Government. All undergraduate students who are considered North Carolina resident students for tuition purposes should make application, although only those applicants with the greatest financial need can expect this grant. For 1970-80 no separate NCSIG application is required. Instead, all applicants from North Carolina should state on the Family Financial Statement (FFS), item #91, Code #6666 representing College Foundation, Inc., Raleigh, N. C. and in the same item #91, Code #3109 representing Isothermal Community College, Spindale, N. C. as the agency and institution to which the data should be sent.

Each year, scholarships to Isothermal Community College are awarded to deserving students by the following organizations. The college does not participate in the selection process. Students interested in applying for one of the scholarships must contact the grantor.

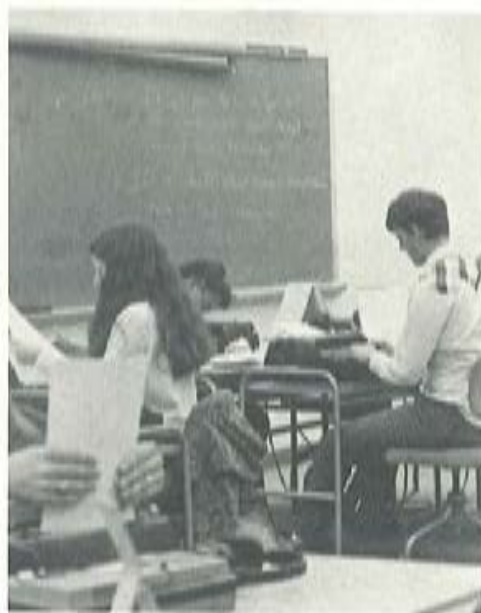
- Beta Conclave Kappa Kappa Iota, Rutherford County
- Chase High School Scholarships
- Dora Yarn Mill
- East Rutherford High School
 - Afro-American Club
 - Student Council
- Gamma Beta Chapter of the Delta Kappa Gamma Society International
 - Forest City, N. C.
- Grand Chapter of the Eastern Star
 - Smithfield, N. C.
- Kiwanis Club of Forest City
- Kiwanis Club of Rutherfordton
- G. K. McClure Educational Fund
 - Asheville, N. C.

National Secretaries Association
Isothermal Chapter, Forest City, N. C.
North Carolina Association of Educators
Rutherford Hospital Auxiliary
Rutherford Jayettes
Rutherfordton Lions Club
Spindale Rotary Club
Spindale Woman's Club



CURRICULUM PROGRAMS

General Education
College Transfer Programs
Technical Programs
Vocational Programs
Certificate Programs
Independent Study
Cooperative Education



CURRICULUM PROGRAMS

Curriculum programs at Isothermal Community College fall into three major categories—general education, college transfer and occupational. The general education program is designed for someone with no intentions of transferring to a senior institution or someone that does not have any specific educational goals. 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.

General Education

G-020 Associate of General Education

College Transfer

C-004 Pre-Business Administration
C-004 Industrial Management Option
C-026 Pre-Business Education

- C-007 Pre-Engineering
- C-033 Pre-Industrial Supervision and Management
- C-010 Pre-Law
- C-011 Pre-Liberal Arts
- C-012 Pre-Math
- C-013 Pre-Medical
- 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
- C-024 Undecided

Technical

- T-109 Associate Degree for Vocational Instructors
- T-018 Business Administration
- T-022 Data Processing
- T-073 Early Childhood Specialist
- T-033 General Office Technology
- T-049 Industrial Supervision and Management
- T-129 Criminal Justice
- T-030 Secretarial—Executive
- T-088 Teacher Associate

Vocational

- V-001 Automotive Body Repair
- V-003 Automotive Mechanics
- V-067 Child Care Worker
- V-009 Cosmetology
- V-018 Electrical Installation and Maintenance
- V-042 Electronic Servicing—Radio/T.V. Repair
- V-033 Industrial Mechanics
- V-029 Light Construction
- V-032 Machinist
- V-072 Nurse Assistant
- V-038 Practical Nursing
- V-050 Welding

GENERAL EDUCATION

The General Education program is designed for the person who does not have a specific educational goal in mind, but wishes to take courses to broaden their personal knowledge in fields of interest or in new areas. If the courses outlined below are taken during the student's time at Isothermal Community College, then the Associate of General Education (AGE) degree can be awarded. This program is *not* designed for transfer to a senior institution. If, however, one decides to transfer after starting this program, then it will be the student's responsibility to take those courses required for admission to the senior institution. This program has a curriculum code of G020.

GRADUATION REQUIREMENTS

Associate of General Education (AGE)

Subject	Course	Credit Hours
History	History 0101, 0102, 0103	9
Communications	English 0101, 0102, 0103	9
Literature	English 0201, 0202, 0203	9
Mathematics	Math 0101 or 0121	4 or 5
Natural Science	Lab Science (3 courses) Biology 0101, 0102, 0103 or Geology 0101, 0102, 0103 or Chemistry 0101, 0102, 0103 or Physics 0201, 0202, 0203	12
Physical Education	PED 0101	2
Humanities	May be taken from any Art, Music, Religion, Philosophy, Humanities, or English courses (except ENG 0100, 0104, and those required above).	3
Electives	May be chosen from among any first digit "0" courses.	47 or 48

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. Sixty (60) of these hours are in designated areas while the other 36 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. 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.

GRADUATION COURSE REQUIREMENTS

ASSOCIATE OF ARTS

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, 0203	9
Mathematics	*Math 0101, 0102 or Math 0121, 0122 or Math 0131, 0132	8

Natural Science	One Lab Science (3 courses) BIO 0101, 2, 3, or CHM 0101, 2, 3, or PHY 0201, 2, 3, or GEO 0101, 2, 3	12
Physical Education	PED 0101 and two PER activity courses from the following: PED 0102-0149, 0201-0210	4
Humanities	May be taken from among any Art, Music, REL, PHI, HUM, or ENG courses (except ENG 0100, 0104, and those required above).	6
Social Science	May be taken from among any PSY, REL, PHI, SOC, ANT, ECO, HIS, GEO, or POL SCIENCE courses	3
Electives	May be chosen from among any first digit "0" courses	36

*Math 0121, 0122, 0131, and 0132 are 5-hour courses.

GRADUATION COURSE REQUIREMENTS

ASSOCIATE OF SCIENCE

The Associate of Science degree will be awarded to those students completing the general liberal arts requirements prescribed for the Associate of Arts degree and any additional requirements for pre-science/pre-medical, pre-engineering/pre-math, or pre-industrial supervision and management programs as follows:

Pre-Science/Pre-Medical (C-018/C-013) must include:

- 20 hours math (MAT 0121, 0122, 0131, 0132)
- 24 hours Natural Science
- 4-10 additional hours math and/or science

Pre-Engineering/Pre-Math (C-007/C-012) must include:

- MAT 0131, 0132, 0133, 0231 and
- PHY 0201, 0202, 0203 and
- CHM 0101, 0102, 0103 -or-
- BIO 0101, 0102, 0103

Pre-Industrial Supervision and Management (C-033) must include:

- CHM 0101, 0102, 0103
- PHY 0201, 0202, 0203
- MAT 0121, 0122, 0131, 0132, 0133, and 0231 -or-
- any 30 hours of advanced math beyond 0121

These requirements are reflected in the program outlines which follow.

PRE-BUSINESS ADMINISTRATION C-004

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
ENG 0101	Freshman Composition I	3	0	3
MAT -0101	Finite Mathematics I	4	0	4
or				
MAT 0121	College Algebra & Trigonometry I			
Natural Science	Biology, Chemistry, or Geology	3	3	4
HIS 0101	Western Civilization	3	0	3
PED 0101	Concepts in Physical Education	1	2	2
		<u>14</u>	<u>5</u>	<u>16</u>
SECOND QUARTER				
ENG 0102	Freshman Composition II	3	0	3
MAT 0102	Finite Mathematics II	4	0	4
or				
MAT 0122	College Algebra & Trigonometry II			
Natural Science		3	3	4
HIS 0102	Western Civilization	3	0	3
PED	Selection	0	3	1
	Humanities Requirement	3	0	3
		<u>16</u>	<u>6</u>	<u>18</u>
THIRD QUARTER				
ENG 0103	Freshman Composition III	3	0	3
Natural Science		3	3	4
HIS 0103	Western Civilization	3	0	3
PED	Selection	0	3	1
	Humanities Requirement	3	0	3
	Elective	3	0	3
		<u>15</u>	<u>6</u>	<u>17</u>
FOURTH QUARTER				
ENG 0201	English Literature I	3	0	3
BUS 0101	Beginning Typewriting*	2	3	3
BUS 0210	Principles of Accounting	3	2	3
BUS 0225	Business Law	3	0	3
ECO 0201	Principles of Economics	3	2	3
		<u>14</u>	<u>7</u>	<u>15</u>
FIFTH QUARTER				
ENG 0202	English Literature II	3	0	3
BUS 0211	Principles of Accounting	3	2	3
BUS 0226	Business Law	3	0	3
ECO 0202	Principles of Economics	3	2	3
	Elective	3	0	3
		<u>15</u>	<u>4</u>	<u>15</u>
SIXTH QUARTER				
ENG 0203	American Literature	3	0	3
BUS 0212	Principles of Accounting	3	2	3
BUS 0227	Business Law	3	0	3
ECO 0203	Principles of Economics	3	2	3
	Elective	3	0	3
		<u>15</u>	<u>4</u>	<u>15</u>

*May demonstrate competency

PRE-BUSINESS EDUCATION C-026

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0101	Finite Mathematics I	4	0	4
		or			
MAT	0121	College Algebra & Trigonometry I			
BUS	0101	Beginning Typewriting*	2	3	3
BIO	0101	Principles of Biology	3	3	4
HIS	0101	Western Civilization	3	0	3
			<u>15</u>	<u>3</u>	<u>17</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0102	Finite Mathematics II	4	0	4
		or			
MAT	0122	College Algebra & Trigonometry II			
BUS	0102	Typewriting	2	3	3
BIO	0102	Principles of Biology	3	3	4
HIS	0102	Western Civilization	3	0	3
PED		Selection	0	3	1
			<u>15</u>	<u>9</u>	<u>18</u>
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
BUS	0103	Typewriting	2	3	3
BIO	0103	Principles of Biology	3	3	4
HIS	0103	Western Civilization	3	0	3
ENG	0160	Public Speaking	3	0	3
PED		Selection	0	3	1
			<u>14</u>	<u>9</u>	<u>17</u>
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
BUS	0104	Shorthand	3	2	4
BUS	0210	Principles of Accounting	3	2	3
ECO	0201	Principles of Economics	3	2	3
SOC	0160	Introduction to Sociology	3	0	3
			<u>15</u>	<u>6</u>	<u>16</u>
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
BUS	0105	Shorthand	3	2	4
BUS	0211	Principles of Accounting	3	2	3
ECO	0202	Principles of Economics	3	2	3
PSY	0260	General Psychology	3	0	3
			<u>15</u>	<u>6</u>	<u>16</u>
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
BUS	0106	Shorthand	3	2	4
BUS	0212	Principles of Accounting	3	2	3
ECO	0203	Principles of Economics	3	2	3
PED	0101	Concepts in Physical Education	1	2	2
MUS	0161	Music Appreciation	3	0	3
		or			
ART	0160	Survey of Art	—	—	—
			<u>16</u>	<u>8</u>	<u>18</u>

*May demonstrate competency

PRE-ENGINEERING AND PRE-MATH C-007/C-012

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
CHM	0101 General Chemistry	3	3	4
EGR	0101 Engineering Drawing I or Elective	0	6	3
ENG	0101 Freshman Composition I	3	0	3
HIS	0101 Western Civilization	3	0	3
MAT	0121 College Algebra & Trigonometry I	5	0	5
	or			
MAT	0131 Calculus & Analytic Geometry I	—	—	—
		14	9	18
SECOND QUARTER				
CHM	0102 General Chemistry	3	3	4
EGR	0102 Engineering Drawing II or Elective	0	6	3
ENG	0102 Freshman Composition II	3	0	3
HIS	0102 Western Civilization	3	0	3
MAT	0122 College Algebra & Trigonometry II	5	0	5
	or			
MAT	0132 Calculus & Analytic Geometry II	—	—	—
		14	9	18
THIRD QUARTER				
CHM	0103 General Chemistry	3	3	4
ENG	0103 Freshman Composition III	3	0	3
HIS	0103 Western Civilization	3	0	3
MAT	0131 Calculus & Analytical Geometry I	5	0	5
	or			
MAT	0133 Calculus & Analytic Geometry III	—	—	—
PED	0101 Concepts in Physical Education	1	2	2
		12	5	17
FOURTH QUARTER				
ENG	0201 English Literature I	3	0	3
MAT	0132 Calculus & Analytic Geometry II	5	0	5
	or			
MAT	0231 Calculus & Analytic Geometry IV	—	—	—
PED	Selection	0	3	1
PHY	0201 General Physics	3	3	4
	Humanities Requirement	3	0	3
		14	6	16
FIFTH QUARTER				
ENG	0202 English Literature II	3	0	3
MAT	0133 Calculus & Analytic Geometry III	5	0	5
PED	Selection	0	3	1
PHY	0202 General Physics	3	3	4
	Humanities Requirement	3	0	3
		14	6	16
SIXTH QUARTER				
ENG	0203 American Literature	3	0	3
MAT	0231 Calculus & Analytic Geometry IV	5	0	5
	or			
MAT	0140 Introductory Statistics	—	—	—
PHY	0203 General Physics	3	3	4
	Social Science Requirement	3	0	3
		14	3	15

PRE-INDUSTRIAL SUPERVISION AND MANAGEMENT C-033

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0102	College Alg. & Trig. I	5	0	5
or					
MAT	0131	Calculus & Anal. Geo. I			
CHM	0101	General Chemistry	3	3	4
HIS	0101	Western Civilization	3	0	3
		Humanities Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			17	3	18
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0122	College Alg. & Trig. II	5	0	5
or					
MAT	0132	Calculus & Anal. Geo. II			
CHM	0102	General Chemistry	3	3	4
HIS	0102	Western Civilization	3	0	3
		Humanities Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			17	3	18
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
MAT	0131	Calculus & Anal. Geo. I	5	0	5
or					
MAT	0133	Calculus & Anal. Geo. III			
PEE	0101	Concepts in P.E.	1	2	2
CHM	0103	General Chemistry	3	3	4
HIS	0103	Western Civilization	3	0	3
			<hr/>	<hr/>	<hr/>
			15	5	17
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
MAT	0132	Calculus and Anal. Geo. II	5	0	5
or					
MAT	0231	Calculus and Anal. Geo. IV			
PHY	0201	General Physics	3	3	4
PER		P.E. Elective	0	3	1
		Social Science Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			14	6	16
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
MAT	0133	Calculus & Anal. Geo. III	5	0	5
or					
		Elective			
PHY	0202	General Physics	3	3	4
PER		P. E. Elective	0	3	1
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			14	6	16

SIXTH QUARTER

ENG	0203	Major American Writers	3	0	3
MAT	0231	Calculus & Anal. Geo. IV	5	0	5
or					
MAT	0140	Introductory Statistics			
PHY	0203	General Physics	3	3	4
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			14	3	15

Electives should be chosen from the following courses depending upon the student's interest and chosen field of study.

ENG 0160

ECO 0201, 0202

TEX 0101, 0200, 0201, 0204 } especially for those students transferring to NCSU in the Textile curriculum.

ISC 0111, 0112, 0113, 0213, 0215, 0216, 0217

BUS 0214, 0216, 0224

PRE-LAW C-010

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
HIS	0101	Western Civilization	3	0	3
		Natural Science (Biology, Chemistry, or Geology)	3	3	4
MAT	0101	Finite Mathematics I	4	0	4
		or			
MAT	0121	College Algebra & Trigonometry			
PED	0101	Concepts in Physical Education	1	2	2
			<hr/>	<hr/>	<hr/>
			14	5	16
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
HIS	0102	Western Civilization	3	0	3
		Natural Science	3	3	4
MAT	0102	Finite Mathematics II	4	0	4
		or			
MAT	0122	College Algebra & Trigonometry			
PED		Selection	0	3	1
			<hr/>	<hr/>	<hr/>
			13	6	15
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
HIS	0103	Western Civilization	3	0	3
		Natural Science	3	3	4
		Humanities Requirement	3	0	3
PED		Selection	0	3	1
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			15	6	17
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
HIS	0260	History of U.S.	3	0	3
POL	0260	American Government	3	0	3
		Humanities Requirement	3	0	3
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			15	0	15
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
HIS	0261	History of U.S.	3	0	3
POL	0261	Problems & Policies of American			
		Government	3	0	3
		Electives	9	0	9
			<hr/>	<hr/>	<hr/>
			18	0	18
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
HIS	0262	History of U.S.	3	0	3
POL	0262	State & Local Government	3	0	3
		Electives	6	0	6
			<hr/>	<hr/>	<hr/>
			15	0	15

Electives should be taken from the social science area.

PRE-LIBERAL ARTS C-011

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
ENG	0101 Freshman Composition I	3	0	3
HIS	0101 Western Civilization	3	0	3
	Natural Science (Biology, Chemistry, or Geology)	3	3	4
MAT	0101 Finite Mathematics I	4	0	4
	or			
MAT	0121 College Algebra & Trigonometry			
PED	0101 Concepts in Physical Education	<u>1</u>	<u>2</u>	<u>2</u>
		14	5	16
SECOND QUARTER				
ENG	0102 Freshman Composition II	3	0	3
HIS	0102 Western Civilization	3	0	3
	Natural Science	3	3	4
MAT	0102 Finite Mathematics II	4	0	4
	or			
MAT	0122 College Algebra & Trigonometry			
PED	Selection	<u>0</u>	<u>3</u>	<u>1</u>
		13	6	15
THIRD QUARTER				
ENG	0103 Freshman Composition III	3	0	3
HIS	0103 Western Civilization	3	0	3
	Natural Science	3	3	4
	Social Science Requirement	3	0	3
PED	Selection	0	3	1
	Elective	<u>3</u>	<u>0</u>	<u>3</u>
		15	5	17
FOURTH QUARTER				
ENG	0201 English Literature I	3	0	3
	Humanities Requirement	3	0	3
	Electives	<u>9</u>	<u>0</u>	<u>9</u>
		15	0	15
FIFTH QUARTER				
ENG	0202 English Literature II	3	0	3
	Humanities Requirement	3	0	3
	Electives	<u>12</u>	<u>0</u>	<u>12</u>
		18	0	18
SIXTH QUARTER				
ENG	0203 American Literature	3	0	3
	Electives	<u>12</u>	<u>0</u>	<u>12</u>
		15	0	15

PRE-SCIENCE/PRE-MEDICAL C-018/C-013

Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER			
ENG 0101 Freshman Composition I	3	0	3
HIS 0101 Western Civilization	3	0	3
MAT 0121 College Algebra & Trig I	5	0	5
Natural Science (Biology, Chemistry, or Geology)	3	3	4
PED 0101 Concepts in Physical Education	1	2	2
	<hr/>	<hr/>	<hr/>
	15	5	17
SECOND QUARTER			
ENG 0102 Freshman Composition II	3	0	3
HIS 0102 Western Civilization	3	0	3
MAT 0122 College Algebra & Trig II	5	0	5
Natural Science	3	3	4
PED Selection	0	3	1
	<hr/>	<hr/>	<hr/>
	14	6	16
THIRD QUARTER			
ENG 0103 Freshman Composition III	3	0	3
HIS 0103 Western Civilization	3	0	3
Natural Science	3	3	4
Social Science Requirement	3	0	3
Humanities Requirement	3	0	3
	<hr/>	<hr/>	<hr/>
	15	3	16
FOURTH QUARTER			
ENG 0201 English Literature I	3	0	3
MAT 0131 Calculus & Analytic Geometry I	5	0	5
Natural Science	3	3	4
Natural Science	3	3	4
	<hr/>	<hr/>	<hr/>
	14	6	16
FIFTH QUARTER			
ENG 0202 English Literature II	3	0	3
MAT 0132 Calculus & Analytic Geometry II	5	0	5
Natural Science	3	3	4
Natural Science	3	3	4
	<hr/>	<hr/>	<hr/>
	14	6	16
SIXTH QUARTER			
ENG 0203 American Literature	3	0	3
Natural Science	3	3	4
Natural Science	3	3	4
Humanities Requirement	3	0	3
PED Selection	0	3	1
	<hr/>	<hr/>	<hr/>
	12	9	15

This is only a suggested outline for a pre-science/pre-medical student to secure the Associate of Science degree. Science courses can be substituted for MAT 0131 and MAT 0132, and they can be chosen to best suit the student's area of concentration.

PRE-SOCIAL WORK C-019

Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER			
ENG 0101 Freshman Composition I	3	0	3
HIS 0101 Western Civilization	3	0	3
Natural Science (Biology, Chemistry or Geology)	3	3	4
MAT 0101 Finite Mathematics I	4	0	4
SOC 0160 Introduction to Sociology	3	0	3
	<u>16</u>	<u>3</u>	<u>17</u>
SECOND QUARTER			
ENG 0102 Freshman Composition II	3	0	3
HIS 0102 Western Civilization	3	0	3
Natural Science	3	3	4
MAT 0102 Finite Mathematics II	4	0	4
SOC 0161 Social Problems	3	0	3
	<u>16</u>	<u>3</u>	<u>17</u>
THIRD QUARTER			
ENG 0103 Freshman Composition III	3	0	3
HIS 0103 Western Civilization	3	0	3
Natural Science	3	3	4
SOC 0162 Sociology of the Family	3	0	3
Humanities Requirement	3	0	3
PED Selection	0	3	1
	<u>15</u>	<u>6</u>	<u>17</u>
FOURTH QUARTER			
ENG 0201 English Literature I	3	0	3
PSY 0260 General Psychology	3	0	3
PED 0101 Concepts in Physical Education	1	2	2
Humanities Requirement	3	0	3
Electives	6	0	6
	<u>16</u>	<u>2</u>	<u>17</u>
FIFTH QUARTER			
ENG 0202 English Literature II	3	0	3
PSY 0261 Developmental Psychology	3	0	3
PED Selection	0	3	1
Electives	9	0	9
	<u>15</u>	<u>3</u>	<u>16</u>
SIXTH QUARTER			
ENG 0203 American Literature	3	0	3
PSY 0262 Applied Psychology	3	0	3
Electives	6	0	6
	<u>12</u>	<u>0</u>	<u>12</u>

Electives to be considered should include Anthropology, Religion, U.S. History, Political Science, Philosophy, Public Speaking, and Human Ecology.

PRE-TEACHING EARLY CHILDHOOD C-035

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BIO	0101	Principles of Biology	3	3	4
HIS	0101	Western Civilization	3	0	3
EDU	0101	Introduction to Child Education	3	0	3
MAT	0101	Finite Mathematics I	4	0	4
			<u>16</u>	<u>3</u>	<u>17</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BIO	0102	Principles of Biology	3	3	4
HIS	0102	Western Civilization	3	0	3
MAT	0102	Finite Mathematics II	4	0	4
PED	0101	Concepts in Physical Education	1	2	2
			<u>14</u>	<u>5</u>	<u>16</u>
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
BIO	0103	Principles of Biology	3	3	4
HIS	0103	Western Civilization	3	0	3
		Humanities Requirement	3	0	3
		Elective	3	0	3
			<u>15</u>	<u>3</u>	<u>16</u>
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
PSY	0115	Human Growth and Development I	3	0	3
PED		Selection	0	3	1
		Humanities Requirement	3	0	3
		Electives	6	0	6
			<u>15</u>	<u>3</u>	<u>16</u>
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
PSY	0116	Human Growth and Development II	3	0	3
PED		Selection	0	3	1
		Electives	9	0	9
			<u>15</u>	<u>3</u>	<u>16</u>
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
EDU	0203	Exceptional Child	3	0	3
		Electives	9	0	9
			<u>15</u>	<u>0</u>	<u>15</u>

PRE-TEACHING (Elementary) C-020

PRE-TEACHING (Secondary) C-028

Course Title		Class Hours	Lab Hours	Credit Hours	
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
HIS	0101	Western Civilization	3	0	3
BIO	0101	Principles of Biology	3	3	4
MAT	0101	Finite Mathematics I or MAT 0121 (5-0-5)	4	0	4
PED	0101	Concepts in Physical Education	1	2	2
			<u>14</u>	<u>5</u>	<u>16</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
HIS	0102	Western Civilization	3	0	3
BIO	0102	Principles of Biology	3	3	4
MAT	0102	Finite Mathematics II or MAT 0122 (5-0-5)	4	0	4
PED		Selection	0	3	1
			<u>13</u>	<u>6</u>	<u>15</u>
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
HIS	0103	Western Civilization	3	0	3
BIO	0103	Principles of Biology	3	3	4
PED		Selection	0	3	1
		Electives	6	0	6
			<u>15</u>	<u>6</u>	<u>17</u>
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
GEG	0160	Physical Geography	3	2	4
		A Physical Science (Chemistry, Physics or Geology)	3	3	4
		Humanities Requirement	3	0	3
		Elective	3	0	3
			<u>15</u>	<u>5</u>	<u>17</u>
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
GEG	0161	Economic Geography	3	0	3
		A Physical Science	3	3	4
		Humanities Requirement	3	0	3
		Elective	3	0	3
			<u>15</u>	<u>3</u>	<u>16</u>
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
GEG	0162	World Regions	3	0	3
		A Physical Science	3	3	4
		Electives	6	0	6
			<u>15</u>	<u>3</u>	<u>16</u>

Electives should be taken from Humanities, Education, Social Science, and Science courses to suit individual interest and senior institution requirements.

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 the 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 achievement for the Industrial Supervision and Management Program, for the Technical Business Administration Program and for the one year Secretarial Science Program by completing the quarter hours as designated in the outlines in the certificate section. *The student must apply to the Registrar's Office for this certificate.*

The Technical Programs offered are:

**Associate Degree for
Vocational Instructors
Business Administration
Early Childhood Specialist
General Office Technology
Industrial Supervision and
Management
Criminal Justice
Executive Secretary
Teacher Associate**



BUSINESS ADMINISTRATION (Day) T010

Course Title		Class Hours	Lab Hours	Credit Hours	
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0110	Business Math	3	0	3
BUS	0101	Beginning Typewriting*	2	3	3
BUS	0210	Principles of Accounting	3	2	3
		Elective	3	0	3
			<u>14</u>	<u>5</u>	<u>15</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0107	Business Machines	2	3	3
BUS	0112	Business Finance	3	0	3
BUS	0211	Principles of Accounting	3	2	3
PSY	0201	Industrial Psychology	3	0	3
		Elective	3	0	3
			<u>17</u>	<u>5</u>	<u>18</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0212	Principles of Accounting	3	2	3
BUS	0214	Business Management	3	0	3
EDP	0101	Data Processing	3	0	3
		Elective	3	0	3
			<u>15</u>	<u>2</u>	<u>15</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0210	Sales Development	3	0	3
BUS	0220	Marketing	3	2	3
BUS	0225	Business Law	3	0	3
ECO	0201	Principles of Economics	3	2	3
		Elective	3	0	3
			<u>18</u>	<u>4</u>	<u>18</u>
FIFTH QUARTER					
BUS	0217	Taxes	3	2	4
BUS	0221	Advertising	3	2	3
BUS	0224	Personnel Management	3	0	3
BUS	0226	Business Law	3	0	3
ECO	0202	Principles of Economics	3	2	3
			<u>15</u>	<u>6</u>	<u>16</u>
SIXTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
BUS	0227	Business Law	3	0	3
ECO	0203	Principles of Economics	3	2	3
		Elective	2	0	2
EDP	0210	Basic Programming I	3	2	4
			<u>14</u>	<u>4</u>	<u>15</u>

*May demonstrate competency.

BUSINESS ADMINISTRATION (Night) T018

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0210	Principles of Accounting	3	2	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			11	5	12
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0110	Business Math	3	0	3
BUS	0211	Principles of Accounting	3	2	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	2	12
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0212	Principles of Accounting	3	2	3
BUS	0214	Business Management	3	0	3
EDP	0101	Data Processing	<u>3</u>	<u>0</u>	<u>3</u>
			12	2	12
FOURTH QUARTER					
BUS	0107	Business Machines	2	3	3
BUS	0220	Marketing	3	2	3
BUS	0221	Advertising	3	2	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			11	7	12
FIFTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0218	Sales Development	3	0	3
BUS	0225	Business Law	3	0	3
ECO	0201	Principles of Economics	<u>3</u>	<u>2</u>	<u>3</u>
			12	2	12
SIXTH QUARTER					
BUS	0217	Taxes	3	2	4
BUS	0224	Personnel Management	3	0	3
BUS	0226	Business Law	3	0	3
ECO	0202	Principles of Economics	<u>3</u>	<u>2</u>	<u>3</u>
			12	4	13
SEVENTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
BUS	0227	Business Law	3	0	3
ECO	0203	Principles of Economics	3	2	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	2	12
EIGHTH QUARTER					
BUS	0112	Business Finance	3	0	3
PSY	0201	Industrial Psychology	3	0	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			12	0	12

CRIMINAL JUSTICE

This curriculum is designed to afford the student the opportunity to acquire basic skills and knowledge in the law enforcement field. Criminal Justice offers such courses as criminal law, criminalistics, criminal investigation, traffic enforcement, etc.

The Criminal Justice program enables a graduate to acquire employment in the field of law enforcement, security services, and/or correction. Currently there is a demand for dedicated men and women in all of these areas.

CRIMINAL JUSTICE PROGRAM T129

A.A.S. Degree

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
CJC	0101	Introduction to Criminal Justice	3	0	3
ENG	0101	Freshman Composition I	3	0	3
MAT	0100	Basic Math II	3	0	3
SOC	0160	Introduction to Sociology	3	0	3
		Elective	3	0	3
			15	0	15
SECOND QUARTER					
CJC	0102	Law Enforcement Organization and Admin.	3	0	3
ENG	0102	Freshman Composition II	3	0	3
MAT	0111	Technical Math	3	0	3
SOC	0161	Social Problems	3	0	3
		Elective	3	0	3
			15	0	15
THIRD QUARTER					
CJC	0103	Law Enforcement Role in Crime & Delin.	3	0	3
ENG	0104	Business Communications	3	0	3
HEA	0103	First Aid	3	0	3
SOC	0162	Sociology of the Family	3	0	3
		Elective	3	0	3
			15	0	15
FOURTH QUARTER					
BUS	0101	Beginning Typewriting*	3	0	3
CJC	0104	Traffic Planning & Management	3	0	3
CJC	0105	Criminal Law	3	0	3
ENG	0160	Public Speaking	3	0	3
		Elective	3	0	3
			15	0	15
FIFTH QUARTER					
CJC	0201	Criminal Evidence	3	0	3
POL	0260	American Government	3	0	3
PSY	0260	General Psychology	3	0	3
		Electives	6	0	6
			15	0	15

SIXTH QUARTER

CHM	0162	Introduction to Chemistry	3	2	4
CJC	0202	Criminal Investigation	3	0	3
HIS	0261	History of the U.S.	3	0	3
POL	0261	Problems & Policies of American Gov.	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	2	16

SEVENTH QUARTER

CJC	0203	Introduction to Criminalistics	3	0	3
HIS	0262	History of the U.S.	3	0	3
POL	0262	American State & Local Government	3	0	3
PSY	0262	Introduction to Applied Psychology	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	0	15

*May demonstrate competency

CREDIT MAY BE GIVEN FOR PREVIOUS LAW ENFORCEMENT TRAINING.

EARLY CHILDHOOD SPECIALIST PROGRAM T073

The Early Childhood Specialist program is designed for people who are interested in working with young children and who desire to open a day care center. It is a six quarter program which includes academic courses, early childhood education courses, business courses, and practical experiences in educational settings.

Students who complete the Early Childhood Specialist Program are qualified to direct or work in day care centers or private nursery schools.

The curriculum is six quarters in length. A student may enter the program any quarter of the year.

Course Title		Class Hours	Lab Hours	Credit Hours	
FIRST QUARTER					
EDU	0110	Orientation to Training	0	3	1
ENG	0101	Freshman Composition	3	0	3
EDU	0101	Introduction to Education	3	0	3
PSY	0115	Human Growth & Development	3	0	3
EDU	0115	Language Arts	3	0	3
PED		Elective	0	3	1
		Elective	3	0	3
			<u>15</u>	<u>6</u>	<u>17</u>
SECOND QUARTER					
PSY	0116	Human Growth & Development II	3	0	3
EDU	0208	Art for Children	3	0	3
EDU	0209	Social Studies for Children	3	0	3
EDU	0204	Parent Education	3	0	3
PED		Elective	0	3	1
MAT		Elective	3	0	3
			<u>15</u>	<u>3</u>	<u>16</u>
THIRD QUARTER					
EDU	0203	Exceptional Child	3	0	3
EDU	0250	Practicum	0	14	5
EDU	0251	Seminar	1	0	1
PED	0240	Child Physical Education	3	0	3
HEA	0201	Health, Safety, and Nutrition	3	0	3
		Elective	3	0	3
EDU	0213	Children's Literature	3	0	3
			<u>16</u>	<u>14</u>	<u>21</u>
FOURTH QUARTER					
EDU	0107	Administration, Supervision & Standards	3	0	3
EDU	0108	Math and Science for Children	3	0	3
EDU	0109	Learning Activities	3	0	3
EDU	0242	Practicum	0	14	5
EDU	0243	Seminar	1	0	1
		Elective	3	0	3
			<u>13</u>	<u>14</u>	<u>18</u>

FIFTH QUARTER

RED	0102	Methods, Materials, & Techniques of Teaching Reading I	3	0	3
EDU	0214	Instructional Resources	3	0	3
BUS	0101	Typing I	3	0	3
EDU	0215	Individual Instruction	3	0	3
HEA	0103	First Aid	3	0	3
Elective			3	3	3
			<u>18</u>	<u>0</u>	<u>18</u>

SIXTH QUARTER

EDU	0210	Math for Children	3	0	3
EDU	0211	Science for Children	3	0	3
RED	0103	Methods, Materials, & Techniques of Teaching Reading II	3	0	3
EDU	0234	A-V Materials	3	0	3
SOC	0215	Human Relations	3	0	3
		Elective	3	0	3
EDU	0212	Music for Children	3	0	3
			<u>21</u>	<u>0</u>	<u>21</u>

EXECUTIVE SECRETARIAL SCIENCE (Day) T030

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0100	Introduction to Business	3	2	3
BUS	0101	Typewriting*	2	3	3
BUS	0104	Shorthand	3	2	4
MAT	0110	Business Math	3	0	3
			<u>14</u>	<u>7</u>	<u>16</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0102	Typewriting	2	3	3
BUS	0105	Shorthand	3	2	4
BUS	0107	Business Machines	2	3	3
PSY	0101	Personality Development	3	2	3
			<u>13</u>	<u>10</u>	<u>16</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0103	Typewriting	2	3	3
BUS	0106	Shorthand	3	2	4
BUS	0206	Term & Vocabulary Elective	3	0	3
			<u>14</u>	<u>5</u>	<u>16</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0202	Dictation & Transcription	3	2	4
BUS	0210	Accounting	3	2	3
BUS	0225	Business Law Elective	3	0	3
			<u>15</u>	<u>4</u>	<u>16</u>
FIFTH QUARTER					
BUS	0203	Dictation & Transcription	3	2	4
BUS	0205	Machine Transcription	1	6	3
BUS	0211	Accounting	3	2	3
PSY	0201	Industrial Psychology Elective	3	0	3
			<u>13</u>	<u>10</u>	<u>16</u>
SIXTH QUARTER					
BUS	0204	Dictation & Transcription	3	2	4
BUS	0108	Filing	3	0	3
BUS	0213	Secretarial Procedures	3	2	4
BUS	0215	Office Management Elective	3	0	3
			<u>15</u>	<u>4</u>	<u>17</u>

*May demonstrate competency.

GENERAL OFFICE TECHNOLOGY (Day) T033

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0100	Introduction to Business	3	2	3
BUS	0101	Typewriting*	2	3	3
MAT	0110	Business Math	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			14	5	15
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0102	Typewriting	2	3	3
BUS	0107	Business Machines	2	3	3
PSY	0101	Personality Development	3	2	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			13	8	15
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0103	Typewriting	2	3	3
BUS	0206	Term & Vocabulary	3	0	3
EDP	0101	Data Processing	3	0	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			17	3	18
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0201	Advanced Typewriting	2	3	3
BUS	0210	Principle of Accounting	3	2	3
BUS	0218	Sales Development	3	0	3
BUS	0225	Business Law	<u>3</u>	<u>0</u>	<u>3</u>
			14	5	15
FIFTH QUARTER					
BUS	0205	Machine Transcription	1	6	3
BUS	0208	Stenoscrypt	3	2	4
PSY	0201	Industrial Psychology	3	0	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			13	8	16
SIXTH QUARTER					
BUS	0108	Filing	3	0	3
BUS	0209	Stenoscrypt	3	2	4
BUS	0213	Secretarial Procedures	3	2	4
BUS	0215	Office Management	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	4	17

*May demonstrate competency

GENERAL OFFICE TECHNOLOGY (Night) T-033

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0110	Business Math	3	0	3
BUS	0100	Introduction to Business	3	2	3
BUS	0101	Beginning Typewriting	2	3	3
			<hr/>	<hr/>	<hr/>
			11	5	12
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0102	Typewriting	2	3	3
BUS	0218	Sales Development	3	0	3
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			11	3	12
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0103	Typewriting	2	3	3
BUS	0206	Term & Vocabulary	3	0	3
EDP	0101	Data Processing	3	0	3
			<hr/>	<hr/>	<hr/>
			11	3	12
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0107	Business Machines	2	3	3
PSY	0101	Personality Development	3	2	3
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			11	5	12
FIFTH QUARTER					
BUS	0201	Advanced Typewriting	2	3	3
BUS	0210	Principles of Accounting	3	2	3
BUS	0225	Business Law	3	0	3
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			11	5	12
SIXTH QUARTER					
BUS	0205	Machine Transcription	1	6	3
BUS	0108	Filing	3	0	3
BUS	0208	Stenograph	3	2	4
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			10	8	13
SEVENTH QUARTER					
BUS	0209	Stenograph	3	2	4
BUS	0213	Secretarial Procedures	3	2	4
BUS	0215	Office Management	3	0	3
		Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			12	4	14
EIGHTH QUARTER					
PSY	0201	Industrial Psychology	3	0	3
		Electives	6	0	6
			<hr/>	<hr/>	<hr/>
			9	0	9

INDUSTRIAL SUPERVISION AND MANAGEMENT (Day) T-049

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0100	Basic Math II	3	0	3
BUS	0100	Introduction to Business	3	2	3
ISC	0111	Industrial Safety	3	2	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	4	15
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0111	Technical Math	3	0	3
ISC	0112	Work Measurement	3	0	3
ISC	0113	Quality Control I	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	0	15
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0214	Principles of Management	3	0	3
ISC	0114	Quality Control II	3	0	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			15	2	15
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0220	Marketing	3	2	2
ECO	0201	Principles of Economics	3	2	3
ISC	0215	Production Planning	3	1	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			18	5	18
FIFTH QUARTER					
BUS	0112	Business Finance	3	0	3
BUS	0224	Personnel Management	3	0	3
ECO	0202	Principles of Economics	3	2	3
PSY	0201	Industrial Psychology	3	0	3
ISC	0216	Job Analysis & Evaluation	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			18	2	18
SIXTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
ECO	0261	Labor Economics	3	0	3
ISC	0213	Value Analysis	3	2	3
ISC	0217	Work Compensation	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	2	15

INDUSTRIAL SUPERVISION AND MANAGEMENT (Night) T-049

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0100	Basic Math II	3	0	3
BUS	0100	Introduction to Business	3	2	3
ISC	0111	Industrial Safety	<u>3</u>	<u>2</u>	<u>3</u>
			12	4	12
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0111	Technical Math	3	0	3
ISC	0112	Work Measurement	3	0	3
ISC	0113	Quality Control I	<u>3</u>	<u>0</u>	<u>3</u>
			12	0	12
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0214	Principles of Management	3	0	3
ISC	0113	Quality Control II	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	0	12
FOURTH QUARTER					
(Summer)					
BUS	0220	Marketing	3	2	3
		Electives	<u>9</u>	<u>0</u>	<u>9</u>
			12	2	12
FIFTH QUARTER					
ENG	0160	Public Speaking	3	0	3
ECO	0201	Principles of Economics	3	2	3
ISC	0215	Productive Planning	3	1	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	3	12
SIXTH QUARTER					
BUS	0224	Personnel Management	3	0	3
ECO	0202	Principles of Economics	3	2	3
ISC	0216	Job Analysis & Evaluation	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	2	12
SEVENTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
ECO	0261	Labor Economics	3	0	3
ISC	0213	Value Analysis	3	2	3
ISC	0217	Work Compensation	<u>3</u>	<u>0</u>	<u>3</u>
			12	2	12
EIGHTH QUARTER					
(Summer)					
BUS	0112	Business Finance	3	0	3
PSY	0201	Industrial Psychology	3	0	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			12	0	12

TEXTILE OPTION (Day) T049
INDUSTRIAL SUPERVISION AND MANAGEMENT

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0100	Basic Math II	3	0	3
ISC	0111	Industrial Safety	3	2	3
TEX	0101	Introduction to Textiles	5	0	5
		Elective	3	0	3
			<u>17</u>	<u>2</u>	<u>17</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0111	Technical Math	3	0	3
ISC	0112	Work Measurement	3	0	3
TEX	0102	Fiber Sciences	3	2	4
		Elective	3	0	3
			<u>15</u>	<u>2</u>	<u>16</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0214	Principles of Management	3	0	3
ISC	0113	Quality Control	3	2	4
TEX	0103	Yarn Forming Systems	3	2	4
		Elective	3	0	3
			<u>15</u>	<u>4</u>	<u>17</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0220	Marketing	3	2	3
ECO	0201	Principles of Economics	3	2	3
ISC	0215	Production Planning	3	1	3
TEX	0201	Fabric Forming Systems	5	0	5
			<u>17</u>	<u>5</u>	<u>17</u>
FIFTH QUARTER					
BUS	0112	Business Finance	3	0	3
BUS	0224	Personnel Management	3	0	3
ECO	0202	Principles of Economics	3	2	3
PSY	0201	Industrial Psychology	3	0	3
ISC	0216	Job Analysis & Evaluation	3	0	3
TEX	0202	Fabric Design & Analysis	2	3	3
			<u>17</u>	<u>5</u>	<u>18</u>
SIXTH QUARTER					
BUS	0216	Principles of Supervisions	3	0	3
ECO	0261	Labor Economics	3	0	3
ISC	0217	Work Compensation	3	0	3
TEX	0203	Dyeing & Finishing	3	2	4
		Elective	3	0	3
			<u>15</u>	<u>2</u>	<u>16</u>

TEXTILE OPTION (Night) T049
INDUSTRIAL SUPERVISION AND MANAGEMENT

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0100	Basic Math II	3	0	3
ISC	0111	Industrial Safety	3	2	3
TEX	0101	Introduction to Textiles	5	0	5
			<u>14</u>	<u>2</u>	<u>14</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0111	Technical Math	3	0	3
ISC	0112	Work Measurement	3	0	3
TEX	0102	Fiber Sciences	3	2	4
			<u>12</u>	<u>2</u>	<u>13</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0214	Principles of Management	3	0	3
ISC	0113	Quality Control	3	2	4
TEX	0103	Yarn Forming Systems	3	2	4
			<u>12</u>	<u>4</u>	<u>14</u>
FOURTH QUARTER (Summer)					
BUS	0220	Marketing	3	2	3
		Electives	9	0	9
			<u>12</u>	<u>2</u>	<u>12</u>
FIFTH QUARTER					
ENG	0160	Public Speaking	3	0	3
ECO	0201	Principles of Economics	3	2	3
ISC	0215	Production Planning	3	1	3
TEX	0201	Fabric Forming Systems	5	0	5
			<u>14</u>	<u>3</u>	<u>14</u>
SIXTH QUARTER					
BUS	0224	Personnel Management	3	0	3
ECO	0202	Principles of Economics	3	2	3
ISC	0216	Job Analysis & Evaluation	3	0	3
TEX	0202	Fabric Design & Analysis	2	3	3
			<u>11</u>	<u>5</u>	<u>12</u>
SEVENTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
ECO	0261	Labor Economics	3	0	3
ISC	0217	Work Compensation	3	0	3
TEX	0203	Dyeing & Finishing	3	2	4
			<u>12</u>	<u>2</u>	<u>13</u>
EIGHTH QUARTER (Summer)					
BUS	0112	Business Finance	3	0	3
PSY	0201	Industrial Psychology	3	0	3
		Elective	3	0	3
			<u>9</u>	<u>0</u>	<u>9</u>

TEACHER ASSOCIATE PROGRAM T088

The Teacher Associate Program is designed for students interested in working as teacher assistants in kindergartens, early childhood centers, and public and private schools. Students will study courses in the areas of child as well as theories, methods, and materials needed in child education.

Students who complete the Teacher Associate Program are qualified to work in kindergartens, early childhood centers, and public and private schools as teacher aids or reading tutors.

The curriculum is six quarters in length. A student may enter the program any quarter of the year.

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
EDU	0110	Orientation to Teaching	0	3	1
ENG	0101	Freshman Composition I	3	0	3
EDU	0101	Introduction to Education	3	0	3
PSY	0115	Human Growth & Development	3	0	3
EDU	0115	Language Arts	3	0	3
PED		Elective	0	3	1
		Elective	3	0	3
			<u>15</u>	<u>6</u>	<u>17</u>
SECOND QUARTER					
PSY	0116	Human Growth & Development II	3	0	3
EDU	0208	Art for Children	3	0	3
EDU	0209	Social Studies for Children	3	0	3
EDU	0204	Parent Education	3	0	3
PED		Elective	0	3	1
MAT		Elective	3	0	3
			<u>15</u>	<u>3</u>	<u>16</u>
THIRD QUARTER					
EDU	0203	Exceptional Child	3	0	3
EDU	0250	Practicum	0	14	5
EDU	0251	Seminar	1	0	1
PED	0240	Child Physical Education	3	0	3
HEA	0201	Health, Safety, and Nutrition	3	0	3
		Elective	3	0	3
EDU	0213	Children's Literature	3	0	3
			<u>16</u>	<u>14</u>	<u>21</u>
FOURTH QUARTER					
RED	0102	Methods, Materials, & Techniques of Teaching Reading I	3	0	3
EDU	0214	Instructional Resources	3	0	3
BUS	0101	Typing I	3	0	3
EDU	0215	Individual Instruction	3	0	3
HEA	0103	First Aid	3	0	3
		Elective	3	0	3
			<u>18</u>	<u>0</u>	<u>18</u>

FIFTH QUARTER

EDU	0210	Math for Children	3	0	3
EDU	0211	Science for Children	3	0	3
RED	0103	Methods, Materials, & Techniques of Teaching Reading II	3	0	3
EDU	0234	A-V Materials	3	0	3
SOC	0215	Human Relations	3	0	3
		Elective	3	0	3
EDU	0212	Music for Children	3	0	3
			<u>21</u>	<u>0</u>	<u>21</u>

SIXTH QUARTER

EDU	07J1	Creative Activities	3	0	3
EDU	0221	Administration, Supervision, and Standards	3	0	3
EDU	0252	Practicum	0	14	5
EDU	0253	Seminar	1	0	1
		Elective (Humanities)	3	0	3
		Elective	3	0	3
			<u>13</u>	<u>14</u>	<u>18</u>



**ASSOCIATE DEGREE PROGRAM
FOR
VOCATIONAL INSTRUCTORS
T-109**

INTRODUCTION:

The program is designed for persons who have developed a skill or 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', 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 specialty 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 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. This must be certified by a notarized letter

from the employer. 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. This must be certified by a notarized letter from the employer. 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 specialty 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. Specialty Area	45
1. Through work experience and/or informal course work	
2. Through formal instruction toward a specific vocation	
B. Personal Area (Sciences, Humanities)	26-28
Minimum:	
English	12
Social Sciences	6
Math	4-6
Science	4
C. Professional Area (Education Methods)	12
EDU 0111, 0112, 0113, 0114	12
D. Electives	14

97-99

			Class Hours	Lab Hours	Credit Hours
ENGLISH:					
ENG	0101	Freshman Composition I	3	0	3
ENG	0102	Freshman Composition II	3	0	3
ENG	0103	Freshman Composition III	3	0	3
ENG	0160	Public Speaking	3	0	3

SOCIAL SCIENCE:

Any advisor approved six credit hours of social science.

MATHEMATICS:

MAT	0100	Basic Math II	3	0	3
MAT	0111	Technical Math	3	0	3
	or				
MAT	0101	Finite Math I	4	0	4
	or				
MAT	0121	College Algebra & Trigonometry I	5	0	5

SCIENCE:

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

EDUCATION:

EDU	0111	Occupational Analysis & Course Dev.	3	0	3
EDU	0112	Instructional Methods	3	0	3
EDU	0113	Shop Organization & Planning	3	0	3
EDU	0114	Shop Safety	3	0	3
	or				
ISC	0111	Industrial Safety	3	0	3

ELECTIVES:

Any advisor approved fourteen hours of electives.

TECHNICAL CERTIFICATE PROGRAMS

Upon the recommendation of the Division Chairman to the Dean of Instruction a Certificate of Achievement may be awarded to a student who meets the prescribed requirements in Business Administration, Industrial Supervision and Management, Secretarial Science, Key punch, and Computer Operations.

(Division Chairman will specify course requirements for each area.)

ONE YEAR SECRETARIAL CERTIFICATE T-030

	Credit Hours
FIRST QUARTER—Fall	
ENG 0101 Freshman Composition I	3
BUS 0100 Introduction to Business	3
BUS 0101 Typewriting	3
BUS 0104 Shorthand or three hour Elective	4/3
	12/13
SECOND QUARTER—Winter	
ENG 0160 Public Speaking	3
BUS 0102 Typewriting	3
BUS 0105 Shorthand or BUS 0208 Stenoscrypt	4
MAT 0110 Business Math	3
PSY 0101 Personality Development	3
	16
THIRD QUARTER—Spring	
ENG 0104 Business Communications	3
BUS 0103 Typewriting	3
BUS 0206 Term & Vocabulary	3
BUS 0209 Stenoscrypt or three hour Elective	4/3
EDP 0101 Data Processing	3
	15-16
FOURTH QUARTER—Summer	
BUS 0107 Business Machines	3
BUS 0108 Filing	3
BUS Electives	3
BUS Electives	3
	12
Required Total Hours	57

*A certificate will be awarded upon completion of 57 hours as required and a "C" average.

BUSINESS ADMINISTRATION CERTIFICATE

T-018

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

Required	Credit Hours
ENG 0101 0104 0160	6 hrs. (any two courses)
MAT 0110 Business Math	3 hrs.
BUS 0210 Principles of Accounting	3 hrs.
BUS 0214 Business Management	3 hrs.
BUS 0225 Business Law	3 hrs.
ECO 0201 Principles of Economics	3 hrs.

Electives

Elect 9 hrs. from courses within the Bus Adm Curriculum. Any course with a grade below "C" cannot be applied toward the certificate.

Total Hours 30

INDUSTRIAL SUPERVISION AND MANAGEMENT CERTIFICATE

T-049

A certificate of achievement will be awarded upon successful completion (average of "C"—2.00 QPR) of 31 credit hours from the requirements listed.

Required	Credit Hours
ENG 0101 —0104—0160	6 (any two courses)
MAT 0100 Basic Math II	3
ISC 0113 Quality Control	4
ISC 0215 Production Planning	3
BUS 0214 Principles of Management	3
BUS 0216 Principles of Supervision	3

Electives

Elect 9 hours from courses within the Industrial Supervision and Management curriculum.

Any course with a grade of below "C" cannot be applied toward the certificate.

Total Hours 31

VOCATIONAL PROGRAMS

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 achievement may be obtained through the *day and/or evening* programs by completing the designated courses in the outlines in the certificate section. *The student must apply to the Registrar's Office for this certificate.*

The Vocational Programs offered are:

Automotive Body Repair

Automotive Mechanics

Industrial Mechanics

Welding

Child Care Worker

Cosmetology

Nurse Assistant

Practical Nursing

Electrical Installation

and Maintenance

Electronic Servicing—Radio/T.V. Repair

Light Construction

Machinist



AUTOMOTIVE BODY REPAIR

The Automotive Body Repair curriculum provides training in the use of the equipment and materials of the auto body mechanic trade. The student studies the construction of the automobile body and techniques of auto body repairing, rebuilding, and refinishing.

Repairing, straightening, aligning, metal finishing, and painting of automobile bodies and frames are typical jobs performed. Job titles include automobile body repairman, automotive painter, and frame and chassis repairman.

AUTO BODY REPAIR V001

Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER			
AUB 1101 Auto Body Repair	2	15	7
AUB 1118 Auto Body Problems I	2	3	3
MAT 1101 Math Fundamentals	5	0	5
WLD 1111 Basic Gas Welding I	0	3	1
	<u>9</u>	<u>21</u>	<u>16</u>
SECOND QUARTER			
AUB 1102 Auto Body Repair II	2	15	7
AUB 1119 Auto Body Problems II	2	3	3
RED 1100 Reading Improvement	2	0	2
ENG 1101 Communications	3	0	3
WLD 1112 Basic Arc Welding	0	3	1
	<u>9</u>	<u>21</u>	<u>16</u>
THIRD QUARTER			
AUB 1103 Auto Body Repair III	2	15	7
AUB 1120 Auto Body Problems III	1	6	3
BUS 1100 Small Business	3	0	3
PSY 1100 Human Relations	3	0	3
	<u>9</u>	<u>21</u>	<u>16</u>
FOURTH QUARTER			
AUB 1104 Auto Body Repair IV	2	15	7
AUB 1121 Auto Body Problems IV	2	6	4
PHY 1100 Applied Science	3	2	4
	<u>7</u>	<u>23</u>	<u>15</u>

AUTOMOTIVE MECHANICS V003

The Automotive Mechanics curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair and adjust automotive vehicles. Manual skills are developed in practical shop work and the technical understanding of the operating principles involved in the modern automobile as taught through class assignments, discussions, and shop practice.

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas, they also may service tractors or marine engines and other gasoline-power equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition and use shop manuals and other technical publications as references for technical data.

AUTOMOTIVE MECHANICS V003

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
AUM	1101 Internal Combustion Engines	2	15	7
AUM	1111 Schematics and Diagrams	3	3	4
MAT	1101 Math Fundamentals	5	0	5
RED	1100 Reading Improvement	2	0	2
		<u>12</u>	<u>18</u>	<u>18</u>
SECOND QUARTER				
AUM	1102 Engine Electrical and Fuel Systems	2	15	7
AUM	1112 Schematics and Diagrams	1	3	2
AUM	1118 Automotive Problems	3	3	4
MAT	1102 Measurements	3	0	3
		<u>9</u>	<u>21</u>	<u>16</u>
THIRD QUARTER				
AUM	1103 Brakes, Chassis, and Suspension	2	15	7
AUM	1113 Schematics and Diagrams	1	3	2
AUM	1126 Automotive Air Conditioning	3	3	4
ENG	1101 Communications	3	0	3
		<u>9</u>	<u>21</u>	<u>16</u>
FOURTH QUARTER				
AUM	1104 Automotive Power Train Systems	2	15	7
AUM	1125 Auto Servicing I	4	6	6
BUS	1100 Small Business Operations	3	0	3
		<u>9</u>	<u>21</u>	<u>16</u>
FIFTH QUARTER (Automotive Option)				
AUM	1202 Auto Electrical/Electronics	2	6	4
AUM	1203 Engine Tune-up	2	15	7
AUM	1139 Basic Hydraulics and Pneumatics	2	3	3
		<u>6</u>	<u>24</u>	<u>14</u>

SIXTH QUARTER (Automotive Option)

AUM	1224	Automatic Transmissions	4	9	7
AUM	1226	Auto Servicing II	2	6	4
AUM	1221	Front Suspension, Alignment and Power Steering	<u>3</u>	<u>6</u>	<u>5</u>
			9	21	16

FIFTH QUARTER (Diesel Option)

DIE	1101	Diesel Engines I	2	6	4
AUM	1203	Engine Tune-up	2	15	7
MEC	1139	Basic Hydraulics and Pneumatics	<u>2</u>	<u>3</u>	<u>3</u>
			6	24	14

SIXTH QUARTER (Diesel Option)

DIE	1102	Diesel Engines II	2	6	4
AUM	1224	Automatic Transmissions	4	9	7
AUM	1221	Front Suspension, Alignment and Power Steering	<u>3</u>	<u>6</u>	<u>5</u>
			9	21	16

NOTE: A diploma will be awarded for the successful completion of a *Four-Quarter Program*.

Co-op Summer Work (AUM 1184) may be arranged for students who are pursuing the *Six-Quarter Program*.

An *Advanced Certificate* may be awarded for the successful completion of a *Six-Quarter Option*.

CHILD CARE WORKER PROGRAM

The Child Care Worker Program is designed for people who are interested in working with children. The program includes courses in early childhood education as well as practical experiences in nursery schools, day care centers, private, and public schools.

Students who complete the Child Care Worker Program are qualified to work in a day care center or nursery school as an aid or assistant to the supervisor.

The curriculum is four quarters in length. A student may enter the program any quarter of the year.

		Course Title	Hrs. Per (Class)	Quarter (Clinical)	Quarter Hrs. Credit
FIRST QUARTER (Fall)					
EDU	110	Orientation to Teaching	0	3	1
ENG	101	Freshman Composition	3	0	3
EDU	101	Introduction to Education	3	0	3
PSY	115	Human Growth and Development	3	0	3
EDU	115	Language Arts	3	0	3
PED		Elective	0	3	1
		Elective	3	0	3
			15	6	17
SECOND QUARTER (Winter)					
PSY	116	Human Growth and Development II	3	0	3
EDU	208	Art for Children	3	0	3
EDU	209	Social Studies for Children	3	0	3
EDU	204	Parent Education	3	0	3
PED		Elective	0	3	1
MAT		Math Elective	3	0	3
EDU	212	Music for Children	3	0	3
			18	3	19
THIRD QUARTER (Spring)					
EDU	203	Exceptional Child	3	0	3
EDU	240	Practicum	0	14	5
EDU	241	Seminar	1	0	1
PED	240	Child Physical Education	3	0	3
HEA	201	Health, Safety, and Nutrition	3	0	3
		Elective	3	0	3
EDU	213	Children's Literature	3	0	3
			16	14	21
FOURTH QUARTER (Summer)					
EDU	107	Administration, Supervision, and Standards	3	0	3
EDU	108	Math and Science for Children	3	0	3
EDU	109	Learning Activities	3	0	3
EDU	242	Practicum	0	14	5
EDU	243	Seminar	1	0	1
		Elective	3	0	3
			13	14	17

COSMETOLOGY V-009

Modern Cosmetology is a highly specialized career field involving the use of cosmetics based on scientific principles. The Cosmetologist performs a variety of functions in providing beauty services for customers. He or she is called upon to advise and provide services to men and women concerning make-up, care and treatment of the hair, skin, and hands, including the nails, and also in matters of diet. Accordingly, the Cosmetology curriculum is designed to prepare the student to enter employment and progress in this field. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, hair pressing, massages, scalp treatments, hair cutting, coloring, and styling. The Cosmetology student is also involved in a continuous program of related study which includes grooming, hygiene, professional ethics, anatomy, related chemistry, skin and scalp disorders, and the other phases of cosmetic art.

The curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The Cosmetology Program provides 1320 hours of supervised instruction and practice. However, an additional quarter(s) is available to those students who wish to obtain 1500 hours in lieu of serving an apprenticeship.

All students desiring to graduate from the cosmetology program must successfully complete the program of studies, attaining approximately 1320 hours of instruction and not less than 1260 hours of instruction in addition to the College's Graduation Requirements.

COSMETOLOGY—DAY CURRICULUM

The Cosmetology curriculum designed for day students consists of four quarters totaling 1320 hours of instruction (330 hours per quarter, 55 hours Scientific Study and 275 hours Clinical Application). To receive a diploma students must successfully complete 20 credit hours of Scientific Study and 36 credit hours of Clinical Application.

An optional quarter consisting of 330 hours of instruction (55 hours Scientific Study and 275 hours Clinical Application) may be elected. The additional work may be used to substitute for apprenticeship training as required by the State Board of Cosmetic Arts or for further training.

Course Title		Hrs. Per Week		Qtr.	
		(Class)	(Clinical)	Hrs. Credit	
FIRST QUARTER					
COS	1101	Scientific Study	5	0	5
COS	1011	Clinical Application	0	25	9
			5	25	14

SECOND QUARTER

COS 1102	Scientific Study	5	0	5
COS 1022	Clinical Application	0	25	9
		<u>5</u>	<u>25</u>	<u>14</u>

THIRD QUARTER

COS 1103	Scientific Study	5	0	5
COS 1033	Clinical Application	0	25	9
		<u>5</u>	<u>25</u>	<u>14</u>

FOURTH QUARTER

COS 1104	Scientific Study	5	0	5
COS 1044	Clinical Application	0	25	9
		<u>5</u>	<u>25</u>	<u>14</u>

FIFTH QUARTER (optional)

COS 1105	Scientific Study	5	0	5
COS 1055	Clinical Application	0	25	9
		<u>5</u>	<u>25</u>	<u>14</u>

COSMETOLOGY—NIGHT CURRICULUM

The Cosmetology curriculum designed for night students consists of five quarters totaling 1320 hours of instruction (265 hours per quarter, 44 hours Scientific Study and 200 hours Clinical Instruction). To receive a diploma a student must complete 20 credit hours of Scientific Study and 35 credit hours of Clinical Application.

Two additional quarters, a grand total of 330 hours of instruction, may be elected by students. The additional work may be used to substitute for apprenticeship training as required by the State Board of Cosmetic Arts or for further training.

Course Title		Hrs. Per Week (Class) (Clinical)	Quarter Hrs. Credit	
FIRST QUARTER				
COS 2101	Scientific Study	4	0	4
COS 2011	Clinical Application	0	20	7
		<u>4</u>	<u>20</u>	<u>11</u>
SECOND QUARTER				
COS 2102	Scientific Study	4	0	4
COS 2022	Clinical Application	0	20	7
		<u>4</u>	<u>20</u>	<u>11</u>
THIRD QUARTER				
COS 2103	Scientific Study	4	0	4
COS 2033	Clinical Application	0	20	7
		<u>4</u>	<u>20</u>	<u>11</u>
FOURTH QUARTER				
COS 2104	Scientific Study	4	0	4
COS 2044	Clinical Application	0	20	7
		<u>4</u>	<u>20</u>	<u>11</u>

FIFTH QUARTER

COS	2105	Scientific Study	4	0	4
COS	2055	Clinical Application	<u>0</u>	<u>20</u>	<u>7</u>
			4	20	11

SIXTH QUARTER (optional)

COS	2106	Scientific Study	4	0	4
COS	2066	Clinical Application	<u>0</u>	<u>20</u>	<u>7</u>
			4	20	11

SEVENTH QUARTER (optional)

COS	2107	Scientific Study	1	0	1
COS	2077	Clinical Application	<u>0</u>	<u>5</u>	<u>2</u>
			1	5	3

ELECTRICAL INSTALLATION AND MAINTENANCE

The Electrical Installation and Maintenance curriculum is designed to provide a training program in the basic knowledge, fundamentals, and practices involved in the electrical trades. A large portion of the program is laboratory and shop instruction designed to give the student practical knowledge and application experience in the fundamentals taught in class.

The graduate of this curriculum is qualified to enter an electrical trade as an on-the-job trainee or apprentice, assisting in the planning, layout, installation, check out, and maintenance of systems in residential, commercial, or industrial plants.

ELECTRICAL INSTALLATION AND MAINTENANCE V018

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ELC	1101	AC-DC Current	2	15	7
ELC	1118	Basic Electronics	2	3	3
DFT	1111	Blueprint—Electrical	0	3	1
MAT	1103	Electrical Math I	<u>5</u>	<u>0</u>	<u>5</u>
			9	21	16
SECOND QUARTER					
ELC	1102	Residential Wiring	2	15	7
ELC	1119	N.C. Electrical Codes	5	0	5
DFT	1112	Blueprint—Electrical	0	3	1
MAT	1104	Electrical Math II	<u>5</u>	<u>0</u>	<u>5</u>
			12	18	18
THIRD QUARTER					
ELC	1103	AC-DC Machines	2	15	7
ELC	1120	Troubleshooting Methods	2	3	3
RED	1100	Reading Improvement	2	0	2
PSY	1100	Human Relations	3	0	3
BUS	1100	Small Business	<u>3</u>	<u>0</u>	<u>3</u>
			12	18	18
FOURTH QUARTER					
ELC	1104	Controls of AC-DC Machines	2	15	7
ELC	1121	Industrial Wiring	2	3	3
ENG	1101	Communications	3	0	3
PHY	1100	Physical Science	<u>3</u>	<u>2</u>	<u>4</u>
			10	20	17

ELECTRONIC SERVICING—RADIO/T.V. REPAIR

The curriculum in Electronic Servicing is designed to provide the basic knowledge and skills involved in the installation, maintenance, and servicing of radios, televisions, and sound amplifier systems. A large portion of time is spent in the laboratory verifying electronic principles and developing servicing techniques.

A radio and television serviceman may be required to install, maintain, and service amplitude modulated and frequency modulated home and auto radios; transistorized radios; monochrome and color television sets; intercommunications, public address, and paging systems; high fidelity and stereophonic amplifiers; record players and tape recorders. His work will require meeting the public, both in the repair shop and on service calls. A serviceman who establishes his own business will also need to know how to maintain business records and inventory.

ELECTRONIC SERVICING—RADIO/T.V. REPAIR V-042

	Course Title	Class Hours	Lab Hours	Credit Hours	
FIRST QUARTER					
ELN	1101	Fundamentals of Electronics	5	12	9
ELN	1118	Special Electronics Problems	5	3	6
MAT	1103	Electrical Math I	5	0	5
			<u>15</u>	<u>15</u>	<u>20</u>
SECOND QUARTER					
ELN	1102	Tubes/Transistors	5	12	9
ELN	1119	Modular Components	5	3	6
MAT	1104	Electrical Math II	5	0	5
			<u>15</u>	<u>15</u>	<u>20</u>
THIRD QUARTER					
BUS	1100	Small Business Operations	3	0	3
PSY	1100	Human Relations	3	0	3
RED	1100	Reading Improvements	2	0	2
ELN	1103	Radio Receiver Servicing	5	12	9
ELN	1120	Amplifier Systems	3	2	4
			<u>11</u>	<u>14</u>	<u>19</u>
FOURTH QUARTER					
ELN	1104	TV Receiver Servicing	5	12	9
ELN	1121	Special TV Problems	2	3	3
PHY	1100	Physical Science	3	2	4
ENG	1101	Communications	3	0	3
			<u>13</u>	<u>17</u>	<u>19</u>

INDUSTRIAL MECHANICS

The Industrial Mechanics curriculum is designed to prepare students to enter industry in the mechanics technician area. The student will be given the necessary foundation in order for him/her to progress rapidly in an industrial environment.

Industrial Mechanics offers employment opportunity in almost every industry: textiles, plastics, furniture, metal working, etc.

The Certificate Program courses are identical to the respective courses in the diploma program, therefore, they may be interchanged.

INDUSTRIAL MECHANICS V033

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
RED	1100	Reading Improvement	2	0	2
MEC	1111	Industrial Safety	3	0	3
MAT	1123	Machinist Mathematics	5	0	5
DFT	1104	Blueprints, Schematics, Manuals, & Machine Diagrams	0	3	1
MEC	1101	Machine Shop Theory & Practice I	<u>3</u>	<u>12</u>	<u>7</u>
			13	15	18
SECOND QUARTER					
ENG	1101	Communications	3	0	3
ELC	1131	Basic Electricity & Controls	2	3	3
MAT	1103	Electrical Math I	5	0	5
MEC	1102	Machine Shop Theory & Practice II	3	12	7
WLD	1135	Basic Welding & Cutting	<u>2</u>	<u>3</u>	<u>3</u>
			15	18	21
THIRD QUARTER					
MEC	1133	Machine Maintenance I	3	6	5
BUS	1105	Industrial Organizations	3	0	3
ELC	1113	AC-DC Machines & Controls	3	9	6
MEC	1124	Fundamentals of Hydraulics	<u>3</u>	<u>0</u>	<u>3</u>
			12	15	17
FOURTH QUARTER					
MEC	1134	Machine Maintenance II	3	6	5
MEC	1126	Metallurgy	3	6	5
PLU	1110	Plumbing Pipework	<u>2</u>	<u>6</u>	<u>4</u>
			8	18	14

MACHINIST

This curriculum was prepared to meet the need for trained machinists. Existing industries in North Carolina and new industries moving into the state express the need for skilled craftsmen who have the background, knowledge, and potential to advance in the machine trades. This curriculum is designed to prepare the individual, through theory and practice of various machining operations and related courses, to obtain paid employment in the metal machining occupations.

The machinist is a skilled metal worker who shapes metal parts by using machine tools and hand tools. His training and experience enable him to plan and carry through all the operations needed in turning out a machined product and to switch readily from one kind of product to another. A machinist is able to select the proper tools and material required for each job and to plan the cutting and finishing operations in their proper order so that he can complete the finished work according to blueprint or written specifications. He makes standard shop computations relating to dimensions of work, tooling, feeds, and speeds of machining. He often uses precision measuring instruments such as micrometers and gauges to measure the accuracy of his work to thousandths of an inch.

This skilled worker must be able to set up and operate most types of machine tools. The machinist also must know the composition of metals so that he can heat and quench cutting tools and parts to improve machinability. His knowledge enables him to turn a block of metal into an intricate, precise part.

The machinist may start in one or more of the following areas: machine operator, machine setup operator, machinist apprentice, tool/die/mold apprentice, maintenance helper, machine tool technician, machine and tool salesman, or quality control technician. Advanced jobs in the field include: production foreman, tool/die/mold maker, general machinist, maintenance machinist, tape control programmer, or self-employment is one of the above fields.

MACHINIST V-032

			Hours Per Week		Quarter
Course Title			Class	Lab	Hours Credit
FIRST QUARTER					
MEC	1101	Machine Shop Theory and Practice	3	12	7
MAT	1101	Fundamentals of Mathematics	5	0	5
DFT	1104	Blueprint Reading	0	3	1
MEC	1111	Industrial Safety	3	0	3
RED	1100	Reading Improvement	2	0	2
			<hr/>	<hr/>	<hr/>
			13	15	18
SECOND QUARTER					
MEC	1102	Machine Shop Theory and Practice	3	12	7
WLD	1135	Basic Welding and Cutting	2	3	3
MAT	1102	Measurement	3	0	3
ENG	1101	Communications	3	0	3
DFT	1105	Blueprint Reading: Mechanical	0	3	1
			<hr/>	<hr/>	<hr/>
			11	18	17
THIRD QUARTER					
MEC	1103	Machine Shop Theory and Practice	3	12	7
MAT	1123	Machinist Math	5	0	5
MEC	1118	Introduction to Metals	3	2	4
DFT	1106	Blueprint Reading: Mechanical	0	3	1
			<hr/>	<hr/>	<hr/>
			11	17	17
FOURTH QUARTER					
MEC	1104	Machine Shop Theory and Practice	3	12	7
MEC	1126	Metallurgy	3	6	5
PHY	1100	Applied Science	3	2	4
PSY	1100	Human Relations	3	0	3
			<hr/>	<hr/>	<hr/>
			12	20	19

PRACTICAL NURSE EDUCATION V-038

The aim of the Practical Nurse Education Program is to prepare qualified persons for participation in care of patients of all ages, in various states of dependency, and with a variety of illness conditions.

This one year curriculum is devoted to skills, knowledge, and appreciations needed in Practical Nursing.

Upon successful completion of the 12 month curriculum the graduate is eligible to take the North Carolina Licensing Examination given by the North Carolina State Board of Nursing. Successful completion of the examinations licenses an individual as a Practical Nurse.

		Course Title	Hour Per Week			Quarter
			(Class)	(Lab)	(Clinical)	Hrs. Credit
FALL QUARTER (Fall)						
PNE	1101	Nursing Fundamentals	9	8	0	13
PNE	1102	Anatomy/Physiology	5	0	0	5
PNE	1103	Nutrition	2	0	0	2
MAT	1100	Basic Math	3	0	0	3
PSY	1100	Human Relations	3	0	0	3
ENG	1101	Communications	3	0	0	3
			<u>25</u>	<u>8</u>	<u>0</u>	<u>29</u>
SECOND QUARTER (Winter)						
PNE	1105	Maternity Nursing	6	0	0	6
PNE	1113	Med-Surg I	3	3	0	4
PNE	1116	Pharmacology I	6	0	0	6
PNE	1121	Clinical	0	0	14	5
			<u>15</u>	<u>3</u>	<u>14</u>	<u>21</u>
THIRD QUARTER (Spring)						
PNE	1104	Pediatrics	4	0	0	4
PNE	1114	Med-Surg II	2	2	0	3
PNE	1117	Pharmacology II	4	0	0	4
PNE	1122	Clinical	0	0	21	7
			<u>10</u>	<u>2</u>	<u>21</u>	<u>18</u>
FOURTH QUARTER (Summer)						
PNE	1111	Voc-Adjustment I	2	0	0	2
PNE	1115	Med-Surg III	6	4	0	8
PNE	1123	Clinical	0	0	21	7
			<u>8</u>	<u>4</u>	<u>21</u>	<u>17</u>

WELDING

The Welding curriculum is designed to give students sound understanding of the principles, methods, techniques, and skills essential for successful employment in the welding field and metals industry. Welders join metals by applying intense heat, and sometimes pressure to form a permanent bond between intersecting sections.

Welding offers employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, heavy equipment, railroads, construction, pipefitting, production shop, job shop, and many others.

WELDING V050

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
WLD	1101	Welding I	2	15	7
WLD	1110	Welding Problems I	3	3	4
DFT	1101	Blueprints: Mechanical	0	2	1
MAT	1101	Math Fundamentals	5	0	5
			10	20	17
SECOND QUARTER					
WLD	1102	Welding II	2	15	7
WLD	1119	Welding Problems & Blueprint Reading	2	3	3
RED	1100	Reading Improvements	2	0	2
ENG	1101	Communications	3	0	3
MAT	1102	Measurements	3	0	3
			12	18	18
THIRD QUARTER					
WLD	1103	Welding III	2	15	7
WLD	1120	Welding Problems III	2	3	3
DFT	1103	Pattern Sketching	0	2	1
BUS	1100	Small Business	3	0	3
PSY	1100	Human Relations	3	0	3
			10	20	17
FOURTH QUARTER					
WLD	1104	Welding IV	2	15	7
WLD	1121	Welding Problems IV	2	3	3
WLD	1140	Metallurgy for Welders	3	0	3
PHY	1100	Applied Science	3	2	4
			10	20	17

VOCATIONAL CERTIFICATE PROGRAMS

Upon the recommendation of the Division Chairman to the Dean of Instruction a Certificate of Achievement may be awarded to a student who meets the prescribed requirements in Automotive Body Repair, Automotive Mechanics, Electrical Installation and Maintenance, Electronic Servicing, Nurse Assistant, Welding, Industrial Mechanics, or Machinists.

(Division Chairman will specify course requirements for each area.)

AUTO BODY REPAIR CERTIFICATE PROGRAM V001

			Hours Per Week	Quarter	
			Class	Hours	
			Lab	Credit	
FIRST QUARTER					
AUB	1101	Auto Body Repair I	2	15	7
SECOND QUARTER					
AUB	1102	Auto Body Repair II	2	15	7
THIRD QUARTER					
AUB	1103	Auto Body Repair III	2	15	7
FOURTH QUARTER					
AUB	1104	Auto Body Repair IV	2	15	7

AUTOMOTIVE MECHANICS CERTIFICATE PROGRAM V003

			Hours Per Week	Quarter	
			Class	Hours	
			Lab	Credit	
FIRST QUARTER					
AUM	1101	Internal Combustion Engines	2	15	7
SECOND QUARTER					
AUM	1102	Engine Electrical and Fuel Systems	2	15	7
THIRD QUARTER					
AUM	1103	Brakes, Chassis and Suspension	2	15	7
FOURTH QUARTER					
AUM	1104	Automotive Power Train Systems	2	15	7

**ELECTRICAL INSTALLATION AND MAINTENANCE
EVENING CERTIFICATE PROGRAM
V018**

			Hours	Per Week	Quarter
			Class	Lab	Hours Credit
FIRST QUARTER					
ELC	1101	Basic Electricity	2	15	7
SECOND QUARTER					
ELC	1102	Residential Wiring	2	15	7
THIRD QUARTER					
ELC	1103	AC-DC Machines	2	15	7
FOURTH QUARTER					
ELC	1104	Controls of AC-DC Machines	2	15	7

**ELECTRONIC SERVICING/RADIO-T.V. REPAIR
V042
EVENING CERTIFICATE PROGRAM**

			Hours	Per Week	Quarter
			Class	Lab	Hours Credit
FIRST QUARTER					
ELN	1101	Fundamentals of Electronics	5	12	9
SECOND QUARTER					
ELN	1102	Tubes/Transistors	5	12	9
THIRD QUARTER					
ELN	1103	Radio Receiver Servicing	5	12	9
FOURTH QUARTER					
ELN	1104	TV Receiver Servicing	5	12	9

**INDUSTRIAL MECHANICS
CERTIFICATE PROGRAM
V-033**

	Course Title	Hours Per Week		Quarter
		Class	Lab	Hours Credit
FIRST QUARTER				
MEC	1111 Industrial Safety	3	0	3
MEC	1101 Machine Shop Theory & Practice I	<u>3</u>	<u>12</u>	<u>7</u>
		6	12	10
SECOND QUARTER				
DFT	1104 Blueprints Reading	0	3	1
MEC	1102 Machine Shop Theory & Practice II	<u>3</u>	<u>12</u>	<u>7</u>
		3	15	8
THIRD QUARTER				
MEC	1133 Machine Maintenance I	3	6	5
WLD	1135 Basic Welding & Cutting	<u>0</u>	<u>3</u>	<u>1</u>
		3	9	6
FOURTH QUARTER				
MAT	1123 Machinist Mathematics	5	0	5
PLU	1110 Plumbing Pipework	<u>2</u>	<u>6</u>	<u>4</u>
		7	6	9

**MACHINIST
CERTIFICATE PROGRAM
V-032**

	Course Title	Hours Per Week		Quarter
		Class	Lab	Hours Credit
FIRST QUARTER				
MEC	1101 Machine Shop Theory & Practice	3	12	7
SECOND QUARTER				
MEC	1102 Machine Shop Theory & Practice	3	12	7
THIRD QUARTER				
MEC	1103 Machine Shop Theory & Practice	3	12	7
FOURTH QUARTER				
MEC	1104 Machine Shop Theory & Practice	3	12	7

**WELDING
CERTIFICATE PROGRAM
V050**

			Hours	Per Week	Quarter
			Class	Lab	Hours Credit
FIRST QUARTER					
WLD	1101	Welding I	2	15	7
SECOND QUARTER					
WLD	1102	Welding II	2	15	7
THIRD QUARTER					
WLD	1103	Welding III	2	15	7
FOURTH QUARTER					
WLD	1104	Welding IV	2	15	7

**NURSE ASSISTANT
(Day—Certificate)
V-072**

A three-month program (1 quarter) designed to prepare qualified individuals to give effective nursing care to selected patients, to make and report observations, and to carry out routine aspects of ward management. Classroom teaching is centered around modern concepts of health, functional relationships within a hospital, fundamentals of effective interpersonal relations, and nursing procedures related to daily needs of patients and to common therapeutic measures. Throughout the course emphasis is given to the role of nurses' assistant. Clinical experiences provide opportunities for applying classroom learnings to practice in the hospital setting.

			Hours	Per Week	Quarter
			Class	Lab	Hours Credit
NUA	1111	Nurses Assistant			
		Unit I—Introduction to Nurses' Assistant	2	0	1
		Unit II—Understanding Effects of Illness	1	0	1
		Unit III—Making Observations of Patients	2	2	3
		Unit IV—Safety Measures in Care of Sick	2	1	2
		Unit V—Measures to Promote Patient's Comfort	2	2	3
		Unit VI—Measures Related to Patient's Happiness	3	5	5
		Unit VII—Becoming a Hospital Employee	3	5	5
			<u>15</u>	<u>15</u>	<u>20</u>

INDIVIDUALIZED INSTRUCTION CENTER

Students may earn college credit by enrolling in courses offered in the Individualized Instruction Center in Building 6 (Spindale) and in the Independent Study Center (Tryon).

These courses parallel the material taught in the regular classroom and are monitored by an instructor or an assistant. Enrichment sessions are conducted to allow the student to examine key topics and current issues.

This program offers the student the advantage of being able to begin work at any time during the quarter and of setting his own pace for completing the course of study. The student may arrange his own study time and avoid the possible conflict of classroom versus job or home responsibilities. The student is required to register, to pay appropriate fees, and to take a supervised examination.

All typewriting and machine courses offered by the Division of Business are offered only through the Individualized Instruction Center.

The following courses are currently offered:

ICC CAMPUS

BUS 0101—Beginning Typewriting

BUS 0102—Typewriting II

BUS 0103—Typewriting III

BUS 0107—Machines

BUS 0108—Filing

BUS 0201—Advanced Typewriting

BUS 0205—Machine Transcription

BUS 0210—Principles of Accounting

BUS 0211—Principles of Accounting

BUS 0212—Principles of Accounting

COE 0100—Coop Ed Seminar

ENG 0101—Freshman Comp I

HIS 0101—Western Civilization

HIS 0102—Western Civilization

HIS 0103—Western Civilization

HIS 0260—History of US

HIS 0261—History of US

HIS 0262—History of US

MAT 0090—Basic Math I

MAT 0100—Basic Math II

MAT 0110—Business Math

PSY 0260—General Psychology

SOC -0160—Intro to Sociology

RED 0260—Speed Reading



COOPERATIVE EDUCATION PROGRAM

Cooperative Education is an alternative college program in which students are employed for specific periods of off-campus work as an integral part of their academic program. This employment is related as closely as possible to each student's course of study and individual interest. The blend of classroom theory and practical on-the-job training adds a vital dimension to learning experiences. Numerous advantages accrue from the Cooperative Education approach to learning, such as career direction and financial assistance for participating students, a source of manpower for employers, and an avenue to better relate the college to the community.

A Technical student may earn a maximum of 9 elective hours credit in the Co-op program, 1 hour for COE 100, Cooperative Education Seminar, and 8 hours for the work experience courses. A College Parallel student may earn a maximum of 7 elective hours credit, 1 hour

for the seminar and 6 for related work experience. Students enrolled in the following curricula may participate in Cooperative Education:

College Parallel

- C004—Pre-Business Administration
- C026—Pre-Business Education
- C035—Pre-Teaching Early Childhood
- C020—Pre-Teaching Elementary
- C028—Pre-Teaching Secondary

Technical

- T018—Business Administration
- T030—Executive Secretarial
- T033—General Office Technology
- T049—Industrial Supervision and Management
- T073—Early Childhood Specialist
- T088—Teacher Assistant

Vocational

- V001—Automotive Body Repair
- V033—Automotive Mechanics
- V042—Electronic Servicing—Radio & TV

*Other programs are currently being considered for Cooperative Education

In order to be eligible for the Co-op programs, the student should:

1. Be enrolled in one of the preceding programs, carrying a minimum of 6 credit hours.
2. Have been at Isothermal for at least 1 quarter.
3. Have at least a 2.0 GPA.

Any student meeting these eligibility requirements who wishes to be placed in a part-time or full-time job related to his/her academic major should contact the Director of Cooperative Education in Building 11 and make application to the program.

COURSE DESCRIPTIONS

ISOTHERMAL COMMUNITY COLLEGE

The courses listed on the following pages represent the current curriculum offerings in the College Transfer, Technical, and Vocational programs.

1. The courses are listed in alphabetical order by prefix (example—PSY—Psychology).

2. The courses are numbered as follows: (example—PSY 0201)
 - A. All are 4 digit
 - B. Those beginning with "0" are college transfer and technical courses
 - C. Those beginning with "1" are vocational courses
3. The course title follows the number (example—PSY 0201 Industrial Psychology)
4. The number of contact and credit hours follow the title (example—PSY 0201 Industrial Psychology 3-0-3)
 - A. The *first* number represents the number of *lecture* hours per week.
 - B. The *second* number represents the number of *lab, shop, clinical, or practicum* hours per week.
 - C. The *third* represents the number of *credit* hours assigned to the course.
5. Indicated at the end of the course description is the quarter the course is normally offered. This is subject to change. The following are abbreviations for the quarters—Fall (F), Winter (W), Spring (Sp), Summer (Su).

Full example:

PSY 0201 Industrial Psychology 3-0-3
 A study of the principles of psychology that will be of assistance in the understanding of ----- on the job. Attention is also given to ----- the general community. (W, Su)

Course Descriptions

ANTHROPOLOGY

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 nonindustrial cultures from different regions of the world. (SP)

ANT 0263 Archaeological Methodology 1-0-1
 This course focuses on those aspects of Archaeology that promote practical application of field techniques. The training will consist of proven methodology utilized by professional archaeologists from the time a site is selected to its final usefulness as a source of cultural material. Mapping, photography, surveying, proper excavating techniques, cataloging are but a few of the areas to be covered in this unique approach to the study of mankind. There will be a special emphasis placed upon this immediate Western North Carolina section, both from a pre-historic and historic viewpoint. (SU, F, SP)

ART

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. (F)

AUTO BODY REPAIR

AUB 1101 Auto Body I

2-15-7

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

2-15-7

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

2-15-7

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

2-15-7

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. (5U)

AUB 1118 Auto Body Problems I

2-3-3

This course is designed to give the student more practical applications in reforming automotive body styling lines. Shaping and forming techniques are stressed.

AUB 1119 Auto Body Problems II

2-3-3

Frame straightening will be emphasized. The student will be introduced to various techniques and equipment used to straighten auto frames including the Damage Dozer.

AUB 1120 Auto Body Problems III

1-6-3

Techniques of metal shrinking will be studied. The student will be given ample opportunity to develop these techniques.

AUB 1121 Auto Body Problems IV

2-6-4

Special emphasis will be given to the procedures of estimating damage. Also studied will be the operation of a body shop; ordering parts and materials, making repair orders, etc.

AUTOMOTIVE MECHANICS

- AUM 1101 Internal Combustion Engine** 2-15-7
Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing.
- AUM 1102 Engine Electrical and Fuel System** 2-15-7
A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system.
- AUM 1103 Brakes, Chassis and Suspension** 2-15-7
A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair. Also, the servicing of parking brakes is emphasized. Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension systems.
- AUM 1104 Automotive Power Train Systems** 2-15-7
Principles and functions of automotive power train systems: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.
- AUM 1111 Schematics and Diagrams** 3-3-4
Interpretation and reading of schematics and diagrams. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes.
- AUM 1112 Schematics and Diagrams: Power Mechanics
(Electrical and Fuel Systems)** 1-3-2
Interpretation and reading of schematic prints and diagrams. Making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Learning to identify the various components of the systems by sketching and labeling parts. Practice in tracing wiring systems and diagnosing trouble by using schematics and diagrams found in the automotive service manuals.
- AUM 1113 Schematics and Diagrams** 1-3-2
Interpretation of prints, schematics and diagrams pertaining to automotive chassis and braking systems. A study of components that make up the front suspension, differential assembly and brake assemblies.
- AUM 1118 Special Problems in Automechanics** 3-3-4
The purpose of this course is to broaden the students' experiences in the areas of mechanics. Problems involving experimentation, investigation and writing of a research report involving automobiles, mechanical operations and general maintenance and repair required for machinery may be basis for investigation.
- AUM 1125 Auto Servicing** 4-6-6
Emphasis is on the shop procedures necessary in "trouble-shooting" the various component systems of the automobile. "Trouble-shooting" of automotive systems, provides a full range of experiences in testing, adjusting, repairing and replacing components. A close simulation to an actual automotive shop situation will be maintained.

- AUM 1126 Automotive Air Conditioning** 3-3-4
 General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system. Use of testing equipment in diagnosing trouble, conducting efficiency tests and general maintenance work.
- AUM 1139 Basic Hydraulics and Pneumatics** 2-3-3
 The basic theories and uses of hydraulic and pneumatic systems, and also, the combination of systems. Basic designs and functions of circuits and motors, controls, electro-hydraulic servo-mechanisms, filtration, accumulators and reservoirs. Installation and maintenance of the components will be made by the students.
- AUM 1202 Auto Electrical/Electronics** 2-6-4
 A thorough study of the theory and operation of various automobile electrical units and systems. Maintenance and testing procedures, diagnosis and repair of all types of electrical/electronic components, especially the transistor circuits, found on the modern automobile.
- AUM 1203 Engine Tune-Up** 2-15-7
 This course is designed to provide depth in the understanding and use of various types of tune-up equipment. Emphasis is placed on gaining knowledge of the waveforms of the oscilloscope and other units on the Tune-Up Tester. Through proper use of tune-up equipment, the student is expected to demonstrate his ability to diagnose malfunctions in ignition systems, cranking motors and charging circuits.
- AUM 1221 Front Suspension, Alignment and Power Steering** 3-6-5
 Theory of operation, correct disassembly and mounting of all front suspension parts on various types of frames (car and light truck). A thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, rams, etc., is gained. Theory and application of steering geometry, correct diagnosis of problems and use of the alignment and balancing machines; analysis and correction of tire wearing problems, vibrations, hard steering, pulling, etc., is experienced.
- AUM 1224 Automatic Transmissions** 4-9-7
 This course is designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing and "trouble-shooting" procedures and repair of various types of automatic transmissions.
- AUM 1226 Automobile Servicing II** 2-6-4
 Emphasis is placed on "trouble-shooting" and repairing the various component systems on vehicles provided for general repairs. The student is given in depth experiences in diagnosis, testing, adjusting, repairing, and replacing component parts.
- AUM 1230 Small Engine Repair** 2-6-4
 This course will study the various specifications and parts of the four-cycle engine. Overhaul and maintenance will be emphasized.
- AUM 1231 Motorcycle Engine Repair** 2-6-4
 This course will study the various specifications and parts of the basic motorcycle engine. Various makes of motorcycle engines will be studied on an individual basis. Overhaul and maintenance will be emphasized.

AUM 1232 Marine Engine Repair 2-6-4
This course will study the various specifications and parts of the basic outboard marine engine. Various makes of outboard marine engines will be studied on an individual basis. Maintenance will be emphasized.

AUM 1233 Chain Saw Engine Repair 2-6-4
This course will study the various specifications and parts of the basic two-cycle engine (chain saw engines). Various makes of the two-cycle engine will be studied on an individual basis. Maintenance will be emphasized.

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 0161 Field Botany 3-0-3
This course is designed to acquaint the student with the various types of plants found in North Carolina (specifically Rutherford County). The main area of concentration will be the flowering plants, but algae, fungi, lichens, mosses, liverworts, and ferns will also be studied. The making and use of simple tree "keys" will give a background for understanding some of the problems of classification. The geographic distribution and diversity of flowering plants will be emphasized throughout the course. The majority of the classes will be local field trips with identification occurring in the field (SU)

BIO 0162 Local Flora 2-0-2
This is a short course designed to acquaint the student with the wide variety of seasonal blooming native plants. Native trees and ferns will also be studied. (F, SP)

BIO 0163 Taxonomy and Propagation of Ericaceous Plants 3-0-3
This course concerns itself with the various species and hybrid groups of azaleas and rhododendrons. Included will be a study of the Kurume, Glen Dale, Back acre, Satsuki, and other emerging groups of azaleas. The study of rhododendrons will include Iron-clad, Dexter, Shammarello, Nearing, Gable, Whitney, Lem and other hybrid groups. Culture, diseases, and propagation of azaleas, rhododendrons, and other ericaceous plants will be covered. The selection of proper plants for specific sites will also be studied. (SU)

BIO 0164 Local Ornithology (Bird Identification) 1-0-1
This course is designed for the person interested in bird watching. It includes lectures on the biology of birds and field trips. The field trips will emphasize the identification of birds, both by sight and song. (SU).

BIO 0165 Special Topics in Biology **variable**

This course is designed to deal with any heretofore uncatalogued topics which are of timely and/or special interest. Prerequisites and credit hours will vary with each of the numerous biological topics which may be offered under this "Special Topics In Biology" description.

BIO 0260 and 0261 General Zoology **3-3-4 each**

These courses survey the many topics concerned with the biology of invertebrates and vertebrates. The classification and outstanding characteristics of the major phyla as well as the anatomy and physiology are considered. 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 per week. Prerequisite: BIO 0101, 0102, 0103, or the equivalent. (SP)

BUSINESS

BUS 0100 Introduction to Business **3-2-3**

An introductory course in the organization, functions, operations, controls, and problems of business enterprises. (F)

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**

Instruction is based on Gregg shorthand with emphasis on phonetics, penmanship, word families, brief forms, and phrases. It is designed for students who have had no previous shorthand or those who cannot prove competency on a shorthand placement test. (F)

BUS 0105 Shorthand **3-2-4**

This course is a review of fundamental principles, followed by assignments which stress speed, accuracy, fluency, and vocabulary and introduces transcription. Prerequisite: BUS 0104 or proof of competency on a shorthand placement test. (W)

- BUS 0106 Shorthand** 3-2-4
This course is a further study of shorthand theory, acquisition of ability to take rapid dictation, ability to transcribe accurately and an introduction to office style dictation. Prerequisite: BUS 0105. (SP)
- BUS 0107 Business Machines** 2-3-3
A general survey of the business and office machines with training in techniques, processes, operation and application to the ten-key adding machines, and electronic calculators. Prerequisite: MAT 0110. (W, SU)
- BUS 0108 Filing** 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. (W, SP, SU)
- 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, SU)
- 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. (F, SU)
- BUS 0130 Basics of Investments** 1-0-1
A survey course dealing with investing in common and preferred stock, bonds, mutual funds, real estate, the money market, and securities market.
- BUS 0201 Advanced Typewriting** 2-3-3
Emphasis is placed on the development of individual production rates. From the knowledge the students have previously acquired in typewriting, they learn to set up problems using their 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 students 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)
- 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 minute 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 is required for five minutes on new material. Prerequisite: BUS 0203. (SP)
- BUS 0205 Machine Transcription** 1-6-3
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 0103. (W)

- BUS 0206 Terminology and Vocabulary** 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 0207 Medical Transcription** 3-2-3
Emphasis is on syllabication, pronunciation, and spelling. This course is designed to increase the student's ability to understand and use terminology used in the medical world.
- BUS 0208 Stenoscrypt** 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 60 words a minute required. (W)
- BUS 0209 Stenoscrypt** 3-2-4
The study of ABC Shorthand theory; also further emphasis on speed and accuracy of transcription. Minimum dictation rate of 70 words per minute required. Prerequisite: BUS 0208. (SP)
- BUS 0210 Principles of Accounting** 3-2-3
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)
- BUS 0211 Principles of Accounting** 3-2-3
Further study of accounting principles, techniques, and tools of accounting including a study of payrolls, voucher system, depreciation, inventory, notes, deferrals, and accruals; includes practical application of principles learned. Prerequisite: BUS 0210. (W)
- BUS 0212 Principles of Accounting** 3-2-3
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)
- 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. (SP)
- 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** 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. (W)
- 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, W)
- BUS 0219 Legal Transcription** 3-2-3
Course is designed to provide the student with a learning experience in machine transcription of legal terminology and procedures, typing of legal instruments and documents, procedures of officers of the court, and the structure and function of the American court system.
- BUS 0220 Marketing** 3-2-3
A general survey of the field of marketing, with a detailed study of the function, policies, and instructions involved in the marketing process. Emphasis on marketing management. (F, SU)
- BUS 0221 Advertising** 3-2-3
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, selection of media, means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media. (W, SU)
- BUS 0224 Personnel Management** 3-0-3
Principles of organization and management of personnel, procurement, placement, training, performance and checking, supervision, remuneration, labor relations, fringe benefits and security. (W)
- BUS 0225 Business Law** 3-0-3
A general course designed to acquaint the student with law, the court system, and certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies. In addition to the Uniform Commercial Code, the General Statutes of North Carolina are considered. (F)
- BUS 0226 Business Law** 3-0-3
Legal principles pertaining to personal property and bailments, sales, commercial paper, wills and estates, and property rights. Prerequisite: BUS 0225 recommended. (W)
- BUS 0227 Business Law** 3-0-3
Legal principles concerning creditor's and debtor's rights, insurance, bankruptcy, agency and employment, business organizations, and real property. Prerequisite: BUS 0226 recommended. (SP)
- BUS 0228 Real Estate** 3-0-3
A study of real estate law as it applies to real estate brokerage, fair housing laws, contracts, leases, and transfer of title along with property interests and ownerships. Certified by state of North Carolina toward broker's license. Three quarter hours credit, 33 class room hours. 80% or more attendance required by state. Must pass the course to be certified.
- BUS 0229 Real Estate** 3-0-3
A study of real estate practices as they apply to financing, closing transactions, insurance, property management, appraisal, land use controls, building construction, and taxes. Certified by state of North Carolina toward Broker's license. Three quarter hours credit, 33 class room hours. 80% or more attendance required by state. Must pass the course to be certified.

- BUS 0236 Real Estate Review** 1-0-1
A course designed to quickly review topics covered by the state Real Estate Board examination.
- BUS 0237 Math of Real Estate Review** 1-0-1
A review of formulas for calculating the area of squares, rectangles, circles, triangles, trapezoids, and volumes applied to house size or land area. Calculations of commissions, percentages, proration, capitalization, interest, depreciation, appreciation, and taxes.
- BUS 0249 Intermediate Accounting** 3-0-3
Emphasis is placed on accounting theory and concepts and on analysis of the problems that arise in applying these underlying concepts to financial accounting. Prerequisite: BUS 0212.
- BUS 0250 Cost Accounting** 3-0-3
Nature and purposes of cost accounting; accounting for direct labor, materials, and factory burden; job costs, and standard cost principles and procedures; selling and distribution cost; budgets, and executive use of cost figures. Prerequisite: BUS 0212. (F, SP)
- BUS 0251 Estate Planning** 1-0-1
The emphasis is upon the importance of estate planning and the need for a will. Real and personal property, estate planning, wills, and trusts are considered.
- BUS 0252 Bookkeeping** 3-0-3
Emphasis is placed upon the art of record keeping in the business world. The student will learn the proper techniques and application of bookkeeping in the business world.
- BUS 0253 Local Government Accounting** 3-0-3
Emphasis is placed upon the accounting theory used in local government. The student is given an inside look at the practice of accounting in local government.
- 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. (SU)
- BUS 0262 Retailing** 3-2-3
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. (F)
- BUS 0263 Business Insurance** 3-2-3
A presentation of the basic principles of risk insurance and their application including a survey of the various types of insurance. (SP)
- BUS 0264 Office Application** 2-8-3
During the sixth quarter only, students are assigned to work in a business, technical or professional office for five 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 0265 Management Practicum** 1-10-3
On the job experience relevant to area of concentration. (F, W, SP, SU)
- BUS 0266 Basic Economics** 3-0-3
This course is designed to review basic economic concepts and preview economic games that may be used at the elementary school level. Games will be played. (SP, SU)

- BUS 0267 Taxes** 3-0-3
Application of federal and state taxes related to people whose income is from employment in the field of education. (W, SP)
- BUS 0270 Commercial Property Insurance** 3-0-3
This course is designed to aid in the development of analyzing and evaluating exposures and selecting coverages for those exposures for commercial property.
- BUS 0271 Life and Health Insurance** 3-0-3
This course analyzes the major types of life and health insurance: Term, whole life, endowments, annuities, and health insurance contracts. Emphasis will be placed on contractual provision and on the economic consequences of premature death, ill health, old age, and unemployment.
- BUS 0272 Introduction to Insurance** 3-0-3
Topics covered in this course include the history of insurance, introduction to risk, the field of insurance, and insurance law. Approved by the N.C. Dept. of Insurance for licensing.
- BUS 0273 Life, Accident, and Health Insurance** 3-0-3
This course includes a study of life insurance from the following points of view: life exposure, types of life insurance, and life policy provisions. Health insurance will be discussed on the following points: health exposure, types of health insurance, and health policy provisions. Social insurance topics will cover social security, unemployment compensation, and disability insurance. Prerequisite: BUS 0272. Approved by the N.C. Dept. of Insurance for licensing.
- BUS 0274 Fire and Casualty Insurance** 3-0-3
This course includes a study of property insurance, types of automobile insurance, general liability, commercial fire, homeowners, crime insurance, and government fire and casualty insurance. Prerequisite: BUS 0272. Approved by the N.C. Dept. of Insurance for licensing.
- 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)

CARPENTRY

- CAR 1011, 1012 Carpentry I and II** 2-6-4
A brief history of carpentry and present trends of the construction industry. The course will involve operation, care, and safe use of carpenter's handtools and power tools 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.
- CAR 1114 Building Codes** 3-0-3
A study is made of building codes and the minimum requirements for local, county, and state construction regulations. Also, a review will be made of the minimum property requirements of the Federal Housing Administration and the N.C. State Code.

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. Prerequisite: Completion of MAT 0101 and 0102 or currently taking MAT 0121 or higher. (F)

CHM 0102 General Chemistry

3-3-4

A continued study of basic principles with emphasis on solutions, the solid and liquid states of matter, and oxidation-reduction reactions. The laboratory considers the separation and identification of the more common cations and anions. Three laboratory hours per week. Prerequisite: CHM 0101. (W)

CHM 0103 General Chemistry

3-3-4

A continuation of general chemistry with major emphasis on stoichiometric chemistry, equilibrium reactions, electro-chemistry, acid-base reactions, and a brief introduction to organic chemistry. Three laboratory hours per week. Prerequisite: CHM 0102. (SP)

CHM 0160 General Chemistry for the Health Sciences

3-3-4

This is a brief presentation of the basic principles of 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, chemical equilibrium, and basic organic chemistry. (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. Three laboratory hours per week.

COOPERATIVE EDUCATION

COE 100 Cooperative Education Seminar

A career planning and development course designed to help the student make the transition from school to the world of work. The Cooperative Education Program is explained with emphasis on employee responsibilities and employer expectations in a job situation. The student receives instruction in interview techniques and develops a resume. Representatives of business and industry are invited to participate in class sessions. Required of all Co-op students. The seminar should be taken the quarter immediately preceding the first Co-op work assignment, or with the approval of the Director, it may be taken concurrently with the first work assignment.

Credit 1 Quarter Hour

Contact 1 Quarter Hour

COE 101-106 Co-op Part-time Work Experience (Parallel Plan)

Through the Cooperative Education Program, the student works on a part-time basis in a position related to his or her program of study and for an employer selected and/or approved by the college. In addition to on-the-job supervision by the employer, the student is supervised periodically by a faculty member or a Co-op coordinator from the college. Credit hours for the work experience are determined by dividing the average number of hours worked per week for the quarter by 10 and rounding to the nearest whole number. A Co-op student may receive a maximum of 3 credit hours during any one quarter and a maximum of 8 credit hours toward degree or diploma requirements. Grades will be determined by the evaluations by employers, students, and the Co-op office.

Credit	1-3 Hours/Quarter
Contact	10-30 Hours/Quarter
Prerequisite	Full Admission to the Co-op Program; a minimum of one quarter at ICC with minimum G.P.A. of 2.0

*Course numbers designation for registration:

COE 101—1st quarter student has parallel work assignment

COE 102—2nd quarter of parallel work assignment, etc.

COE 201 Co-op Full-time Work Experience I (Alternating Plan)

Through the Cooperative Education Program the student works in a full-time position directly related to his or her program of study and for an employer selected and/or approved by the college. In addition to on-the-job supervision by the employer, the student is supervised periodically by a faculty member or co-op coordinator from the institution. A student may receive a maximum of eight credit hours of co-op work experience toward degree or diploma requirements. Grade will be based primarily on evaluations of the student's progress on-the-job by the employer, the student, and the Co-op office.

Credit	4 Quarter Hours
Contact	40 Quarter Hours
Prerequisite	Full admission to the Co-op Program

COE 202 Co-op Work Experience II

Second full-time work experience in the Co-op Program. The job skills performed during this period will become increasingly advanced. Grade will be based primarily on evaluations of the student's progress on-the-job by the employer, the student, and the Co-op office.

Credit	4 Quarter Hours
Contact	40 Quarter Hours
Prerequisite	COE 201

COSMETOLOGY

Courses in the 1000 and 1100 series are designed for day students, whereas, courses in the 2000 and 2100 series are designed for night students. Courses in all series are also offered in modular form.

Beginners' Department

Students shall spend three hundred (300) hours in this department before entering the advanced department and shall not work on members of the public during this 300 hours. The hours earned in this department shall be devoted to scientific study and mannequin practice. Manicuring practice in this department shall be done on the students enrolled in the school during the first 300 hours.

COS 1011 Clinical Application 0-25-0

A study of Finger Waving, Pin Curling, Rollers, Marcelling, Hair Relaxing, Shampooing and Rinses, Scalp Treatment, Hair Cutting, Permanent Waving, Hairdressing and Combing, Hair Tinting, Bleaching, Frosting, Streaking, Wig Care and Styling.

COS 1101 Scientific Study 5-0-5

This is a course for beginners in Cosmetology. It includes a study of Professional Ethics, Grooming and Personality Development, Sterilization, Sanitation, First Aid and Bacteriology, Cosmetology Law, Anatomy, Chemistry, Nails, Nail Disorders, Manicuring, Hair, Scalp, Skin, and Disorders pertaining to the hair, scalp and skin.

COS 2011 Clinical Application **0-20-7**
A study of Finger Waving, Pin Curling, Rollers, Marcelling, Hair Relaxing, Shampooing and Rinses, Scalp Treatment, Hair Cutting, Permanent Waving, Hairdressing and Combing, Hair Tinting, Bleaching, Frosting, Streaking, Wig Care and Styling.

COS 2101 Scientific Study **4-0-4**
This is a course for beginners in Cosmetology. It includes a study of Professional Ethics, Grooming and Personality Development, Sterilization, Sanitation, First Aid and Bacteriology, Cosmetic Law, Anatomy, Chemistry, Nails, Nail Disorders, Manicuring, Hair, Scalp, Skin, and Disorders pertaining to the hair, scalp, and skin.

Advanced Department

The hours earned in the Advanced Department shall be devoted to the following study and live model performance completions. Work in this department may be done on the public. Students with less than 300 hours shall not work in this department.

COS 1022 Clinical Application **0-25-9**
A study of live model performance. This course is designed to develop skills and understanding of techniques and application in the areas of Bacteriology, Pin Curling, Finger Waving, Rollers, Permanent Waving, Marcelling, Chemical Relaxing, Hairdressing and Wigs, Manicuring and Pedicuring, Skin and Scalp Disorders, Hair Coloring, and Hair Cutting.

COS 1033 Clinical Application **0-25-9**
A continued study of laboratory practices in Chemistry, Sanitation, Sterilization, Hair Coloring and Lash and Brow Tinting, Artistry in Hair Styling, Cold Waving, and Hair Shaping.

COS 1044 Clinical Application **0-25-9**
A continued study of laboratory practices in Chemistry, Sterilization, Sanitation, Safety Measures, the proper use of a Curling Iron, Marcelling, and Speed in all areas of Beauty Salon Service.

COS 1055 Clinical Application **0-25-9**
A continued study of laboratory practices in speed and efficiency in all subjects is emphasized. In addition, the students are taught advanced styling and the latest techniques of blow drying and iron curling. Safety and care of equipment is studied.

COS 1102 Scientific Study **5-0-5**
A classroom study of Skin, Scalp, Hair, Nails, and their Disorders, Salesmanship, Permanent Waving, Marcelling, Relaxing, Hairdressing, Wigs, and Hair Coloring.

COS 1103 Scientific Study **5-0-5**
A classroom study of Anatomy, Manicuring, Chemistry, Cosmetic Facials, Hair Styling, Theory of Massage, Scalp Treatments, Superfluous Hair Removal, Grooming and Hygiene.

COS 1104 Scientific Study **5-0-5**
A classroom study of Chemistry, Sanitation, Sterilization, Hair Coloring and Lash and Brow Tinting, Artistry in Hair Styling, Beauty Salon Salesmanship Management, Electricity, Cold Waving and Hair Shaping.

COS 1105 Scientific Study **5-0-5**
A classroom study of beauty salon management, shop operations, business ethics, salesmanship, record keeping, receptionist training, and beauty charm and poise.

- COS 2022 Clinical Application** 0-20-7
 A study of live model performance. This course is designed to develop skills and understanding of techniques and application in the areas of Bacteriology, Pin Curling, Finger Waving, Rollers, Permanent Waving, Chemical Relaxing, Safety Measures, and Wigs, Manicuring, Skin and Scalp Disorders, Hair Coloring, and Hair Cutting.
- COS 2033 Clinical Application** 0-20-7
 This course gives continued laboratory practice and application of techniques in Hair Shaping, Professional Ethics, Cosmetics-Facials, Hair Styling, Color Rinses, Hair Tinting, and Scalp Treatments.
- COS 2044 Clinical Application** 0-20-7
 A continued study of laboratory practices in Chemistry, Sanitation, Sterilization, Hair Coloring and Lash and Brow Tinting, Artistry in Hair Styling, Cold Waving, and Hair Shaping.
- COS 2055 Clinical Application** 0-20-7
 A continued study of laboratory practice in relation to Hair Styling, Tinting, Bleaching, Special Effects with Color and Lightness, Safety measures with Electrical Equipment, and Hair Shaping.
- COS 2066 Clinical Applications** 0-20-7
 A continued laboratory practice in relation to Chemistry, safety measures, and speed and efficiency in Hair Styling.
- COS 2077 Clinical Application** 0-5-2
 A continued laboratory practice of all subjects emphasized. This course is designed for advanced study and completion of requirements.
- COS 2102 Scientific Study** 4-0-4
 A classroom study of Skin, Scalp, Hair, Nails, and their Disorders, Salesmanship, Permanent Waving, Marcelling, Relaxing, Hairdressing, Wigs and Hair Coloring.
- COS 2103 Scientific Study** 4-0-4
 A classroom study of Anatomy, Manicuring, Chemistry, Cosmetic Facials, Hair Styling, Theory of Massage, Salesmanship, Cold Waving, and Superfluous Hair Removal.
- COS 2104 Scientific Study** 4-0-4
 A classroom study of Chemistry, Sanitation, Sterilization, Hair Coloring and Lash and Brow Tinting, Artistry in Hair Styling, Beauty Salon Salesmanship Management, Electricity, Cold Waving and Hair Shaping.
- COS 2105 Scientific Study** 4-0-4
 A study of Hairstyling, Hair Tinting and Bleaching, Special effects in Hair Coloring, Beauty Salon Management, Safety measures, the proper use of Curling and Marcell Irons, and Hair Shaping.
- COS 2106 Scientific Study** 4-0-4
 A continued study of Chemistry, Safety Measures, Beauty Salon Management, and Advanced Hair Styling techniques.
- COS 2107 Scientific Study** 1-0-1
 An advanced study of Scientific principles and cosmetic application as presented in COS 2101-2105.

CRIMINAL JUSTICE

CJC 0101 Introduction to Criminal Justice 3-0-3

A survey designed to familiarize the student with the criminal justice system; the history of law enforcement, its legal limitations in a democratic republic, the court system from incident to final disposition, principles of constitutional law and an evaluation of the current status of law enforcement with orientation to law enforcement as a vocation.

CJC 0102 Law Enforcement Organization and Administration 3-0-3

Introduction to principles of organization and administration; discussion of departmentalized functions, e.g., personal management, administrative management, training, communications, records, property maintenance and miscellaneous services.

CJC 0103 Law Enforcement 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 of criminal acts and those broad principles upon which a science of criminology must rest.

CJC 0104 Traffic Planning and Management 3-0-3

A study which covers the history of the traffic enforcement problem and an overview of contemporary problems. Attention is given to legislation, the organization of the traffic unit, the responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, accident investigation procedures, evaluation of the traffic program effectiveness, and the allocation of men and materials.

CJC 0105 Criminal Law 3-0-3

Designed to present a basic concept of law and an appreciation of the rule of constitutional law under which one lives in our system of government.

CJC 0201 Criminal Evidence 3-0-3

Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court. Prerequisite: CJC 0105 or permission of instructor.

CJC 0202 Criminal Investigation 3-0-3

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.

CJC 0203 Introduction to Criminalistics 3-0-3

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 the instructor; satisfactory completion of CJC 0202.

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.

- EDP 0102 Key punch** 3-2-3
Designed to acquire the degree of skill necessary for employment as a keypunch operator. The student will learn to keypunch, verify, and sort cards. Emphasis is placed on care and proper operation of the machine and preparation of program cards for placing the machine under programmed control. Prerequisite: BUS 0101 or equivalent.
- EDP 0210 BASIC Programming I** 3-2-4
The student will learn the BASIC language (Beginners All-purpose Symbolic Instruction Code) used in the small business microcomputer. Emphasis will be placed on program logic, writing sample programs, flowcharting, and running programs on the microcomputer.
- EDP 0211 BASIC Programming II** 3-2-4
A continuation of EDP 0210. The implementing of programming techniques to solve business related problems will be encountered by the student. Emphasis will be placed on advanced programs and use of the disk. Prerequisite: EDP 0210.
- EDP 0220 RPG Programming I** 3-2-4
Report Program Generator (RPG) coding includes preparation of the spacing chart, file description, file extension, input calculation, and output specification sheets. Business programs are written and run on an IBM 360 computer. Prerequisite: EDP 0101.
- EDP 0221 RPG Programming II** 3-2-4
A continuation of the study of RPG programming covering more complex features and advanced programming techniques. Prerequisite: EDP 0220.
- EDP 0230 COBOL Programming I** 3-2-4
The Common Business Oriented Language (COBOL) is presented in detail. A variety of business and commercial applications are programmed and tested by the students. Prerequisites: EDP 0101 and EDP 0220.
- EDP 0231 COBOL Programming II** 3-2-4
A continuation of EDP 0230. The student will learn more complex techniques and features of COBOL language by writing, flowcharting, debugging, and running programs. Prerequisite: EDP 0230.
- EDP 0240 Systems Analysis I** 3-0-3
A study of the theoretical concepts involved in the development and analysis of systems that are needed for recording and presenting information to meet business and government requirements. Prerequisites: EDP 0101, EDP 0210 or EDP 0220.
- EDP 0241 Systems Analysis II** 3-0-3
A continuation of the study of concepts involved in the development and analysis of automated systems. The student will study and determine cost and practical use of a variety of systems. Prerequisite: EDP 0240.
- EDP 0250 Data Processing Projects** 3-2-4
Individual assignments of carefully selected projects will be the work of the student during this quarter. It will give the student an opportunity to initiate and carry out projects. This course places the responsibility upon the student to solve significant problems with a minimum of assistance from the instructor. Prerequisites: EDP 0101, EDP 0241, EDP 0211 or EDP 0221.

DRAFTING

- DFT 1101 Blueprints: Mechanical** 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 1104 Blueprint Reading** 0-3-1
Interpretation and reading of blueprints. Information on the basic principals of the blueprint; lines, views, dimensioning procedures and notes.
- DFT 1105 Blueprint Reading: Mechanical** 0-3-1
Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes.
- DFT 1106 Blueprint Reading: Mechanical** 3-0-3
Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction, and assembly.
- DFT 1111 Blueprints: Electrical** 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, overhead. (W)
- DFT 1115 Structural Drawing** 2-3-3
This course will dwell on the structure of buildings. Roof design, wall sections (both masonry and wood), kitchen details, bath details, and any special type of construction will be studied. (SU)
- DFT 1120 Basic House Plan Layout** 1-3-2
A study is made of architectural drawing. Included is basic layout, types of drawings, dimensions, and schedules. A student will be able to draw a complete set of simple house plans. (F)

DIESEL MECHANICS

- DIE 1101 Diesel Engines I** 2-6-4
The trainees will be taught the design and operating principles of the diesel engines; how to disassemble the engine; how to clean, check, and test the components for serviceability; and how to store engine components properly. They should also learn the purpose, design, and servicing of the engine's supporting systems (fuel-injection systems intake, exhaust, cooling and lubrication). Training in why specific tests, checks, and adjustments are required will be provided, and trainees will be given the opportunity to perform them during and after assembly. Trainees will be taught the design and operating principles of the major fuel systems.

DIE 1102 Diesel Engines II 2-6-4
A study and practice in the servicing and repair of diesel engines and components. A study of fuels and special handling precautions, diesel engine principles, design, construction, reboring and installing of cylinder sleeves, and the operation of auxiliary engine controls.

ECONOMICS

ECO 0201 Economic Principles 3-2-3
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 Economics Principles 3-2-3
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 3-2-3
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 3-2-3
A study of personal financial problems in such areas as housing, budgeting, loans, banking, taxes, credit and insurance. (F, SU)

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 management, the shift in the means of public control, and the factors of income and economic security. (SP)

EDUCATION

EDU 0101 Introduction to 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 0107 Administration, Supervision, and Standards 3-0-3
The student will learn skills necessary to supervise and organize an effective day care center. Licensing procedures and program planning will be emphasized. This course is designed for students completing the programs of Child Care Worker or Early Childhood Specialist. (SU)

EDU 0108 Math and Science for Children 3-0-3
Students will learn how to incorporate science and math activities into everyday curriculum. Methods, materials, and concepts essential for the young child will be stressed. This course is designed for students completing the programs of Child Care Worker or Early Childhood Specialist. (SU)

EDU 0109 Learning Activities 3-0-3
The use of art media, music puppetry, and creative drama will be emphasized. The student will learn how to incorporate the creative process in the total curriculum. Designed for students completing the Child Care Worker or Early Childhood Specialist Program. (SU)

EDU 0110 Orientation to Teaching 0-3-1
Provides experiences for the student to observe in the practical application of teaching skills. This observation will take place in the K-3 settings, day-care and other child development centers. (F)

- EDU 0111 Occupational Analysis and 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 vocational occupation or activity.
- EDU 0112 Instructional Methods** 3-0-3
This course includes the various instructional methods in vocational education with emphasis on behavioral objectives and individualized instruction.
- EDU 0113 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, will be made. The study will be required to design a shop or lab for his/her particular vocation.
- EDU 0114 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 personal protective equipment for various types of school shops. The importance of safety planning will be stressed.
- EDU 0115 Language Arts** 3-0-3
A study of content, method, and materials of language arts skills. The student will collect a resource file of games and activities designed to strengthen the Language Arts Program. (F)
- EDU 0203 Exceptional Child** 3-0-3
The study of children with developmental variations who needs modifications in various areas of education. Special emphasis is given to the mental, emotional, and physical development of the child. (SP)
- EDU 0204 Parent Education** 3-0-3
Students will study the influences of the family in classroom and home settings. The importance of values, parent-school relationships, individual rights, and family life styles will be studied. (W)
- EDU 0208 Art for Children** 3-0-3
The student will have the opportunity to work in a variety of art media and develop skills in instructional techniques suitable for working with young children. (W)
- EDU 0209 Social Studies for Children** 3-0-3
A study of content, method, and materials of social studies for use in the Early Childhood Curriculum. Students will write a social studies unit and teach a lesson from the resource unit. (W)
- EDU 0210 Math for Children** 3-0-3
The student will study basic mathematical concepts, understandings, and sequence of math skills. Methods and techniques and appropriate materials and games will be emphasized. (W)
- EDU 0211 Science for Children** 3-0-3
The student will study the importance of science concepts in the early childhood curriculum. The student will write a resource unit and plan an adequate science program. (W)
- EDU 0212 Music for Children** 3-0-3
Provides background in music theory and appreciation for classroom use. Singing, autoharp, chording piano, and recorder will be included. Students will have the opportunity to illustrate the different techniques and styles in teaching songs and other musical activities. (W)

- EDU 0213 Children's Literature** 3-0-3
A critical study of classical and current books and materials used with young children on the K-3 level. A study of dramatics, reading styles, poetry and prose will be included. (5)
- EDU 0214 Instructional Resources** 3-0-3
The student will study the resources available in the community and school. Testing, report writing, and roles of school personnel will be studied. (F)
- EDU 0215 Individualized Instruction** 3-0-3
The student will study how to assess pupils' needs and plan materials, games, and activities for individual needs. (F)
- EDU 0221 Administration, Supervision and Standards** 3-0-3
The student will study record keeping, school policies, organization of classroom, supervision of children and professional ethics. (SP)
- EDU 0231 Creative Activities** 3-0-3
The student will create games, materials, and training activities appropriate for the young child. Cooking, woodworking, serving, art, puppetry, drama, etc., will be included. (SP)
- EDU 0234 AV Materials/Equipment** 3-0-3
Instruction in the use of AV 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. (W)
- EDU 0240/0242 The Practicum** 0-12-4
The student will observe and develop skills working with children in classroom and day care situations. This course is designed for students completing the Child Care Worker Program or Early Childhood Specialist Program. (SP, SU)
- EDU 0241/0243 Seminar** 1-0-1
Theories, techniques, and methods observed in day care centers and classroom settings will be discussed. Students will integrate ideas related in course work and practicum situations. This course is designed for students completing the Child Care Worker or Early Childhood Specialist Program. (SP, SU)
- EDU 0250/0252 Practicum** 0-12-4
A practicum experience for the teacher associate which allows the student to observe 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. (SP/SP)
- EDU 0251/0253 Seminar** 1-0-1
A seminar for the teacher associate which gives the student an opportunity to express practicum experiences. Emphasis is placed on special learning techniques, communications, and lesson and unit planning. The practicum correlating with the seminar must be taken the same quarter. Seminar credit is reported in practicum. (SP/SP)

ELECTRICAL INSTALLATION AND MAINTENANCE

- ELC 1011, 1012 Basic Electricity I and II** 2-6-4
Provides instruction and application in the fundamentals of electricity. A study of the National Electrical Code in actual building mock-ups will be emphasized. Residential and commercial wiring will be studied.

- ELC 1101 AC/DC Current** 2-15-7
 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 Kirchoff'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.
- ELC 1102 Residential Wiring** 2-15-7
 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, and National Electrical Code regulations in actual building mock-ups. Prerequisites: ELC 1101, DFT 1111, or permission from the instructor.
- ELC 1103 AC/DC Machines** 2-15-7
 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.
- ELC 1104 Controls of AC/DC Machines** 2-15-7
 Provides instructions and applications in basic controls of AC/DC machines including various push-button stations, float switches, timers, sequencing switches, pressure switches and thermostats.
- ELC 1118 Basic Electronics** 2-3-3
 An introduction to semiconductor diodes and transistors. A study will be made of their operation, characteristics, testing procedures, and applications.
- ELC 1119 National Electrical Code** 5-0-5
 A study of the National Electrical Code and its relationship to state and local electrical codes that deal with residential wiring.
- ELC 1120 Troubleshooting Methods** 2-3-3
 Provides instruction and application in various methods of troubleshooting both single phase, three-phase and DC motors and generators.
- ELC 1121 Industrial Wiring** 2-3-3
 A study of layout, planning, and installation of wiring systems in commercial and industrial complexes. Also, a study of various raceways used in industry, including types of conduit and the preparation and installation of each type.
- ELC 1131 Basic Electricity & Controls** 2-3-3
 This course covers the elementary principles of electricity, including units and terms, Ohm's Law, power, and types of electricity with specific application to the operation of electrical controls.

ELECTRONIC SERVICING—RADIO/T.V. REPAIR

- ELN 1101 Fundamentals of Electronics** 5-12-9
 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/Transistors** 5-12-9
 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. Prerequisite: ELN 1101 or permission from the instructor.

ELN 1103 Radio Receiver Servicing 5-12-9

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, ELN 1101, or permission from the instructor.

ELN 1104 Television Receiver Servicing 5-12-9

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, ELN 1102, or permission from the instructor.

ELN 1118 Special Electronics Problems 5-3-6

Special emphasis will be given to troubleshooting and problem solving of electronic circuits consisting of resistors, inductors, and capacitors.

ELN 1119 Modular Components 5-3-6

Introduction to integrated circuits and modular components. A study of their applications to audio frequency, radio frequency, and electronic switching will be stressed.

ELN 1120 Amplifier Systems 3-2-4

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, or permission from the instructor.

ELN 1121 Special TV Problems 2-3-3

The study of techniques involved in diagnosing special malfunctions in TV video, audio, sweep, and synchronized circuits.

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 are 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.

- EGR 0103 Engineering Drawing III** 0-6-3
 This course is a continuation of EGR 0102. Design and working drawings, isometric drawings, and perspectives will be studied. A special emphasis will be given to the specific interest of the student. Prerequisites: EGR 0101 and EGR 0102.
- ENGLISH**
- ENG 0100 Advancement English** 3-0-2
 This course provides basic English skills identified as necessary to succeed in the Freshman Composition sequence. It includes a study of major structural errors, grammar, mechanics, punctuation, spelling and diction. This course is oriented toward student success. Everyone with an unacceptable score on the English portion of the entrance test will be required to complete this course before s/he can graduate. (F, W, SP, SU)
- ENG 0101 Freshman Composition I** 3-0-3
 Emphasizes writing effective paragraphs as a logical step toward writing longer papers. Prescriptive grammatical studies, library orientation and library assignment will be included as a part of the course. (F, W, SP, SU)
- ENG 0102 Freshman Composition II** 3-0-3
 Expands upon the principles of precise writing which were taught in English 0101. Emphasis is on writing the five paragraph essay. Models for writing will be read and discussed. Additional library work will be required. Prerequisite: ENG 0101 (W, SP, SU)
- ENG 0103 Freshman Composition III** 3-0-3
 Places emphasis on library research and literary forms. Students will read and discuss literature and will write a research paper on a literary or linguistic topic. Prerequisite: ENG 0102 (SP, SU, F)
- ENG 0104 Business Communications** 3-0-3
 A course designed to develop competence in business communications; effective business letter writing, report writing, listening, speaking and reading. Prerequisite: ENG 0102. (SP, SU)
- ENG 0160 Public Speaking** 3-0-3
 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)
- ENG 0161 Journalism** 2-0-2
 This course is to study the techniques of identifying news, gathering information, writing effective accurate news and feature stories. (F, W, SP)
- ENG 0162 Journalism Practice** 0-2-1
 This course is for learning how to prepare news copy for the press and is primarily for the preparation of the school newspaper. This course can be taken as many as three times. (F, W, SP)
- ENG 0163 Study Skills** 3-0-3
 A course designed to improve the student's ability to study more efficiently. The following topics will be included: practical methods in studying for and in taking tests; principles of notetaking, outlining, and other study skills designed to aid students during their college days. (W, SP)

- ENG 0166 Oral Interpretation** 0-2-1
Oral interpretation is a performance oriented course designed for the production of a reader's theater. It will involve a minimum amount of theory, but will primarily concentrate on practical experience.
- 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 0263 Advanced Public Speaking** 3-0-3
This course gives students of public speaking added opportunities to develop greater skills in a variety of public speaking experiences, concentrating on speeches to inform, to persuade, and to entertain. Training includes preparation of speeches, delivery techniques, oral interpretation, research for speech planning, recording the voice, using a microphone, analysis of speeches, and participation in group speaking activities.
- ENG 0270 20th Century Playwrights and Their Works** 3-0-3
This course will deal with prominent 20th century playwrights from America, England, Russia, France, China, and Germany. An in-depth look at representative plays by each writer will be taken, with special emphasis placed on characterization, theme, and setting. Study will also be concentrated on how the playwright's background and life influenced each particular play written and how his philosophy is reflected in each work. (SP, SU)
- ENG 1100 Reading Improvement** 2-0-2
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)

ESTIMATING

- EST 1101 Estimating I** 2-3-3
This is a practical course in quantity "Take-off" from prints of jobs done by carpenters and electricians. Figuring quantities of materials needed and costs of building various components and structures will be included.

- EST 1102 Estimating II** 3-3-4
This is a continuation of Estimating I. Emphasis will be given to masonry estimating and plumbing estimating. A special emphasis will be placed on total cost estimating.

GEOGRAPHY

- 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 Economic Geography** 3-0-3
Geographic factors involved in production, distribution, consumption, and conservation of the major crops, minerals, and industries of the world. (W)

- GEG 0162 World Regions** 3-0-3
Relation of human activities to the larger geographic regions of the world. (SP)

GEOLOGY

- GEL 0101 Physical Geology** 3-3-4
The nature and occurrence of rocks and minerals, together with crustal features of the earth surface. Laboratory work devoted to a study of rocks and minerals and their structure and occurrence. (F)

- GEL 0102 Physical Geology** 3-3-4
A continuation of Geology 0101 with major emphasis upon glaciation and glacial deposits, deserts, oceans, mountains and mountain building, and the earth's interior. Laboratory work will consist of topographic map interpretation. (W)

- GEL 0103 Historical Geology** 3-3-4
Emphasis in this course is on the stratigraphic and fossil history of the earth as found in the earth's crust together with the necessary information on both plant and animal kingdoms to trace the evolution of life down through the ages. Laboratory work will be devoted to experience with fossils, geologic maps, and aerial photographs. (SP)

- GEL 0160 Topics in Geology** 3-0-3
This course is designed to acquaint elementary and high school teachers with some of the major concepts in geology and to study some of the common minerals and rocks found in Rutherford and surrounding counties. A portion of the course will be devoted to working with minerals, rock types, and fossils.

HEALTH

- 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. (F)

- 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. (W)

- HEA 0103 First Aid** 3-0-3
A study of accident and emergency situation: 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. Certification in American Red Cross *Standard First Aid and Personal Safety* is available through this course of instruction. (F, W)

HEA 0104 Basic Life Support 1-0-1

A course designed to teach basic life support, an emergency procedure that consists of recognition of respiratory and/or cardiac arrest and the proper application of cardiopulmonary resuscitation to maintain life until a victim recovers or advanced life support is available. (F, SU)

HEA 201 Health, Safety and Nutrition 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. (SP)

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. (W, SU)

HISTORY

HIS 0101, 0102, 0103 Western Civilization 3-0-3 each

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 each

A survey of the history of the United States: 1492-1840; 1840-1896; 1896-current date. (F-SU, W-SU, SP-SU)

HIS 0160 Special Topics in History Variable

This course deals with any history topics which are of timely and/or special interest. Prerequisites and credit hours will vary depending on the nature of the course.

HIS 0265 History of North Carolina 3-0-3

This course is designed to acquaint the students with the history of North Carolina from its inception to the modern day. It is designed for the student who has an interest in how North Carolina came about and what problems it has faced down through the years since its settlement. Students will be involved in classroom discussions and group and written projects during the quarter. (SP, SU)

HORTICULTURE

HOR 0101 Basic Horticulture 3-0-3

This course is an introductory course covering the basic principles of horticulture. Topics to be covered include: cultural requirements of plants, propagation, landscape planning, gardens, organic gardening, nursery management, lawns, soils, insect control, and other selected topics of interest. Class work will consist of lectures, class demonstrations, discussions and field trips. (F)

HOR 0102 Plant Propagation 3-0-3

This course is designed to acquaint the student with the fundamental methods of plant propagation. The propagating of plants by seed, rooting, layering, and specialized stems and roots will be stressed. Much of the course will be devoted to asexual propagation of herbaceous and woody species (azaleas, rhododendrons, hollies, etc.). Construction of rooting beds, rooting mixes, rooting hormones, general sanitation procedures, and the taking of cuttings will be included. (W)

HOR 0103 Ornamental Plants**3-0-3**

This course will include the most important and common types of woody plants available in the Southeast. Plant groups will include hollies, rhododendrons, azaleas, camellias, junipers, osmanthus, magnolias, viburnums and other appropriate groups. Attention will be given to scientific and common names. Time will be devoted to studying size and texture of plants and their maintenance. (SP)

HOR 0104 Landscape Design**3-0-3**

This course is designed for anyone who has an interest in ornamental plants and placing them in an overall design for either homes, businesses, or other areas. Topics to be covered include: drawing plans, selecting proper nursery stock, proper site preparation, planting, and completion of the plan. Each student will be required to draw a set of plans (SU)

HUMANITIES**HUM 0160 Visions of the Future****3-0-3**

An introductory course in the study of the future. Major areas of study include the relevance of futuristics, major methods of forecasting the future, the ideas of leading futurist thinkers, and the concept of alternative and desirable futures explored in three positive world views of the future.

HUM 0161 Special Topics in the Humanities**variable**

The course will deal with timely and/or special interest topics in the humanities. The credit hours and the time in which the course will be offered will vary depending upon the situation.

INDUSTRIAL SCIENCE**ISC 0111 Industrial Safety****3-2-3**

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. (F)

ISC 0112 Work Measurement**3-0-3**

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. (W)

ISC 0113 Quality Control I**3-0-3**

An introduction to probability, statistics, and quality control techniques. Include graphs, measures of central tendency, grouped and ungrouped data, and problem solving. Prerequisite: MAT 0100 or permission of instructor.

ISC 0114 Quality Control II**3-0-3**

A continuation of Quality Control I. Includes time series analysis, trend, moving averages, and curve fitting. Use of Z and T tests. Prerequisite: ISC 0113.

ISC 0213 Value Analysis

3-2-3

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. (SP)

ISC 0215 Production Planning

3-1-3

Day-to-day plant direction; forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed and course of corrective action are developed. Actual layouts are utilized for planning and control. (F)

ISC 0216 Job Analysis and Evaluation

3-0-3

This study is an integral part of Wage and Salary Administration. The job as well as the person performing the job are analyzed and evaluated in order to determine a job's relative worth to a company. (W)

ISC 0217 Work Compensation

3-0-3

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. (SP)

MASONRY**MA5 1011, 1012 Basic Bricklaying I and II**

2-6-4

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.

MATHEMATICS**MAT 0090 Basic Math I**

3-2-2

A course designed to provide a strong background in fundamental arithmetic necessary for further study in any area of mathematics. Detailed attention is given to addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. Percentage, powers of numbers, and roots are also covered. This course carries local credit only. (F, W, SP, SU)

MAT 0100 Basic Math II

3-0-3

A course designed to provide background in the basic fundamentals of algebra required of students planning to take MAT 0101 or MAT 0111. Topics include signed numbers, fundamental operations on polynomials, and the solution of linear equations. This course carries elective credit only. A student who has received credit (with at least a "C") for any math course other than MAT 0090 or MAT 0110 may not take MAT 0100 for credit. Prerequisite: MAT 0090 or satisfactory placement test scores.

MAT 0101 Finite Mathematics I

4-0-4

A non-rigorous approach to the topics of sets, elementary combinatorics, introductory probability and statistics. Prerequisites: Satisfactory placement test scores in arithmetic (or MAT 0090) and algebra (or MAT 0100). (F, W, SP, SU)

MAT 0102 Finite Mathematics II

4-0-4

A continuation of MAT 0101. Topics include: Mathematical systems, systems of numeration, number systems and logic. Prerequisite: MAT 0101. (W, SP, SU)

- MAT 0110 Business Mathematics** 3-0-3
 A course designed to prepare students in the mathematics of current business practices. Topics include percentage, simple and compound interest, discounts, credit and installment buying, annuities, amortizations, and basic statistical concepts. Prerequisite: Satisfactory placement test score in arithmetic or MAT 0090. (F, W, SP, SU)
- MAT 0111 Technical Mathematics** 3-0-3
 A course in basic applied geometry and right triangle trigonometry for students in management, police science, and other technical areas. Topics include: angles, triangles and other plane figures, solid figures, areas, volumes, trigonometric ratios, triangle solving, and vectors. Prerequisite: MAT 0100 or satisfactory placement test score in algebra. (W, SP)
- MAT 0115 Elementary Statistics** 3-0-3
 This course introduces the student to basic descriptive statistics including group frequency distributions, percentiles, measures of central tendency and dispersion, and elementary probability. The normal curve and introductory sampling theory are covered along with linear regression and correlation.
- MAT 0120 Introductory Algebra** 5-0-5
 A course for those students who plan to take College Algebra and Trigonometry (MAT 0121) but who do not have an adequate background in algebra to begin such a course. The course begins with a brief review of signed numbers, algebraic expressions, and linear equations (i.e., those topics covered in MAT 0100) and is followed by a detailed study of: factoring, algebraic fractions, graphing, quadratic equations, radicals, and basic geometry. MAT 0120 is developmental in nature and carries elective credit only. A student who has received credit (with at least a "C") for MAT 0121 or MAT 0131 may not take MAT 0120 for credit. Prerequisite: Satisfactory placement test scores in arithmetic (or MAT 0090) and algebra (or MAT 0100). (F, SU)
- MAT 0121 College Algebra and Trigonometry I** 5-0-5
 The first in a two-quarter sequence of courses in algebra and trigonometry designed to provide thorough preparation for study in calculus, physics, chemistry, and other areas of technology. Topics include: polynomials, exponents, radicals, equations and inequalities, relations and functions, systems of equations and inequalities, exponential and logarithmic functions, and an introduction to trigonometry. A student who has received credit (with at least a "C") for MAT 0131 (Calculus) may not take MAT 0121 for credit except by special permission. Prerequisite: Satisfactory placement test scores or MAT 0120. (F, S, SU)
- MAT 0122 College Algebra and Trigonometry II** 5-0-5
 A continuation of MAT 0121. Topics include: trigonometric functions and their inverses, trigonometric identities and equations, triangle solving and vectors, complex numbers, theory of equations, polynomial and rational functions, sequences and series, and an introduction to probability. Prerequisite: MAT 0121 or permission of instructor. (W, SP, SU)
- MAT 0131 Calculus and Analytic Geometry I** 5-0-5
 A first course in calculus and analytic geometry. Topics include: analytics of the straight line, functions, limits, and derivative, curve sketching and other applications of the derivative, antiderivatives, and the definite integral. Prerequisite: MAT 0122 or satisfactory placement test scores. (F, SP)

- MAT 0132 Calculus and Analytic Geometry II** 5-0-5
 A second course in calculus and analytic geometry with emphasis on the calculus of transcendental functions and methods of integration. Topics include: differentiation and integration of trigonometric, inverse trigonometric, logarithmic, exponential, and hyperbolic functions, methods of integration, and applications of the integral. Prerequisite: MAT 0131. (F, W)
- MAT 0133 Calculus and Analytic Geometry III** 5-0-5
 A third course in calculus and analytic geometry with emphasis on analytic geometry and series. Topics include: vectors in the plane, conic sections, parametric equations, polar coordinates, indeterminate forms, and infinite series. Prerequisite: MAT 0132/ (W, SP)
- MAT 0140 Introductory Statistics** 5-0-5
 A course dealing with collecting, representing, analyzing, and interpreting information. Topics include: descriptive statistics, an introduction to probability, the binomial and normal distribution, 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. (SP, SU)
- MAT 0231 Calculus and Analytic Geometry IV** 5-0-5
 A course in solid analytic geometry and multivariate calculus. Topics include three-dimensional coordinates, vectors, quadric surfaces, partial derivatives, directional derivatives, and multiple integrals. Prerequisite: MAT 0133. (F, SP)
- MAT 1100 Basic Mathematics for Nurses** 3-0-3
 Review and practice in the arithmetic of whole numbers, fractions, decimals and percentage, and ratio and proportion. (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
 A study of linear measures, measuring devices, angles, perimeters, areas, volumes, and metric units. Prerequisite: Permission of advisor. (W)
- MAT 1103 Electrical Math I** 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 II** 5-0-5
 This is the second course in mathematics for electricians. Topics include: equations, ratio and proportion, formulae, and basic applied trigonometry. Prerequisite: Permission of advisor. (W)
- MAT 1123 Machinist Mathematics** 5-0-5
 Introduces gear ratio, lead screw and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems; concludes with an introduction to compound angle problems.

MACHINIST

- MEC 1101 Machine Shop Theory and Practice** 3-12-7
An introduction to the metalworking trade as it relates to machining operations. The student will be oriented to the machine shop, safety, basic hand tools, and shop measuring instruments. Operations on engine lathes, drilling machines, metal cutting saws, milling machines, and bench grinders will also be covered.
- MEC 1102 Machine Shop Theory and Practice** 3-12-7
An introduction to the assembly of parts, fits, hand broaches, screw and tap extractors, set-up equipment, inspection tools, gauges, buffing and polishing, and surface grinders. Continued instruction in the use of precision measuring tools, selection of speeds and feeds, reciprocating and continuous band cut-off saws, contour band saws, lathes, power drills, and milling machines.
- MEC 1103 Machine Shop Theory and Practice** 3-12-7
Additional instruction and practice in the use of precision measuring tools, milling machines, and surface grinders. Practice in setting up and operating machine tools including the selection and use of work holding devices, feeds and speeds, special heads and tables, cutting tools, and coolants. Instruction and practice in the use of power feed drills and abrasive saws.
- MEC 1104 Machine Shop Theory and Practice** 3-12-7
The student will work to required tolerances setting up and operating machine tools. An introduction to turret lathes, advanced milling machine operations, special machining operations, and special machines. Also covered will be grinding specific surfaces using hand, surface and cylindrical grinders, and lapping and honing parts to specific tolerances.
- MEC 1111 Industrial Safety** 3-0-3
A study of the development of Industrial Safety; accident occurrence and prevention; analysis of accident causes and costs; basic factors of accident control; safety education and training; accident reporting and records; employer-employee responsibility; safety organizations; first aid; mechanical safeguards; personal protective equipment use; materials handling; fire prevention; safety codes; and accident statistics.
- MEC 1118 Introduction to Metals** 3-2-4
This course is designed to familiarize the student with the different properties of ferrous and non-ferrous metals. It provides a background for understanding the physical changes and chemical metallurgy of producing metal. The course explains the material designation system, classifications of steels, trade names and cross reference information for comparable materials. Common shop terms used in treatment of metals will be explained.
- MEC 1124 Fundamentals of Hydraulics** 3-0-3
This course is arranged to give the student a general knowledge of the basic components of hydraulic systems, as well as a general understanding of the basic laws and formulas used in simple hydraulic calculations. Course covers such topics as the use of standard hydraulic symbols, pumps, control valves, control assemblies, actuators and basic maintenance procedures.
- MEC 1126 Metallurgy—Heat Treating Practice** 3-6-5
Working knowledge of the methods of treating ferrous and non-ferrous metals. The effects of hardening, tempering, and annealing upon the structure and physical properties of metals. Trainees will be given the opportunity to acquaint themselves with the equipment and processes of heat treating.

MEC 1133 Machine Maintenance I 3-6-6

Basic fundamentals of installation, maintenance and repair of machines. Methods of rigging and machine installation including location, leveling and fastening are covered. A major emphasis will be placed on devising a preventative maintenance program.

MEC 1134 Machine Maintenance II 3-6-5

Study of those parts of the electrical code which affect the industrial maintenance. Practical experience is provided in wiring, installing and connecting the various types of services for lighting, heating and power installations. Training is provided in troubleshooting in the identification and testing of circuits, in making mechanical adjustments and related maintenance operations on various machines. Schematic diagrams showing the plan of operation for each system, electrical or mechanical, are used.

MUSIC

MUS 0160 Chorus 0-3-1

Study-activity course designed to give the student a deeper understanding, appreciation, and enjoyment of choral music, its practice and performance. Open to all students by permission of the instructor. Student may take this 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 Romantic period. 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: 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. In addition to tuition a \$25 fee will be charged for the book, two records and use of the guitar. (F, SP)

PHILOSOPHY

PHI 0260 Introduction to Philosophy 3-0-3

This course is designed to acquaint the student with the great original thinkers from Plato to some modern philosophers. It will deal with the philosophic approach to the classic problems that confront human society. (W)

PHI 0261 Problems in Philosophy 3-0-3

This is a continuation of PHI 0260 with special emphasis on metaphysics and the philosophy of Religion and its influence on morality and the forms of government. Prerequisite: PHI 0260. (SP)

PHOTOGRAPHY

PHO 0160 Basic Photography 2-2-3

This course is the beginning course teaching the parts of the camera and their functions, proper techniques of shooting, developing, and mounting black and white photos. (F, W, SP, SU)

PHYSICAL EDUCATION

- PED 0101 Concepts in Physical Education** 1-2-2
A thorough investigation into the theoretical and practical applications of basic concepts in physical education, such as: Exercise, diet, and weight control; and exercise and heart disease. A lecture-laboratory course of instruction providing the individual with a complete physical fitness profile, and the ability to make intelligent decisions relevant to the development, maintenance, and evaluation of physical fitness and related health-fitness areas. (F, W, SP)
- PED 0102 Archery** 0-3-1
Introduces the student to one of the fastest growing and exciting sports. Because of its few restrictions, archery can be performed by both sexes and is adaptable to the individual's physical and emotional needs. Included as the basics of the course are history, nature of the sport, fundamental skills, safety, competitive shooting, and scoring. (F)
- PED 0103 Bowling** 0-3-1
An introduction to one of the most popular social games in America. Included is history, facilities, equipment and their care. The student will become familiar with rules and etiquette of the game. Through proper mechanics, scoring and marking the student will have the fundamentals to enjoy the game of bowling. (W)
- PED 0104 Golf** 0-3-1
A course designed to develop and strengthen skill in the basic fundamentals of the game. Includes discussions of rules, equipment, playing strategy and etiquette. Not recommended for players of advanced ability. (SP)
- PED 0105 Tumbling (W)** 0-3-1
- PED 0106 Adult Fitness** 0-3-1
Fitness is an individual matter. This course is designed to meet the personnel needs of each individual enrolled. The program is designed to develop and maintain the following components of physical fitness: cardiovascular endurance, muscular endurance, strength, and flexibility. Diet, weight control, posture and low back pain will also be covered in this course. (F, W, SP, SU)
- PED 0107 Fitness and Figure Control** 0-3-1
An exercise course designed to improve physical appearance, muscle tone, loss of body fat, graceful movement, and relaxation. Integrated into the course will be discussions on diet, weight loss, and posture. (F, W, Sp, Su)
- PED 0108 Jogging** 0-3-1
A course in basic jogging. Emphasis will be placed on foot care, choosing the proper shoe, basic techniques in running, proper conditioning for jogging, and development of a personal daily program in running. Other areas to be touched are diets for runners and how to get into local events. Running is one of the best and least expensive exercises to develop fitness and increase cardiovascular endurance. (Sp, Su, F)
- PED 0110 Badminton** 0-3-1
A course designed to develop and strengthen skill in the basic fundamentals of the game. Includes discussions of rules, equipment, playing strategy and etiquette. (W, SP)
- PED 0111 Tennis** 0-3-1
A course designed to develop and strengthen skill in the basic fundamentals of the game. Includes discussions of rules, equipment, playing strategy and etiquette. Not recommended for players of advanced ability (F, SP, SU)

- PED 0112 Intermediate Tennis** 0-3-1
A course designed to develop and refine advanced playing skills. Emphasis is placed upon developing sound playing strategy. Not recommended for beginners or players with limited playing experience. (SU)
- PED 0120 Folk/Square Dancing** 0-3-1
A course designed to teach various types of positions, formations, steps, and identifiable characteristics of folk and square dance. (SP)
- PED 0121 Disco Dancing** 0-3-1
A course designed to teach the basic disco steps and newest techniques along with several disco dances. (W)
- PED 0122 Modern Dance I** 0-3-1
An introductory study of dance as a contemporary art form. Includes discussion and application in such areas as basic principles and techniques of the dance, and movement creativity and design. (W)
- PED 0123 Modern Dance II** 0-3-1
This course will offer continued work in improvisation using time, space and energy to increase sensitivity to dance as an art form. The student will have an opportunity to develop creativity through improvisation and dance studies, and to increase performance level through weekly presentation of personal dance compositions. Prerequisite: PED 0122. (SP)
- PED 0124 Clogging** 0-3-1
A course designed to teach various types of positions, formations, steps, and identifiable characteristics of clogging. (W)
- PED 0130 Adult Beginning Swimming** 0-3-1
This course is designed for the adult non-swimmer. It is recommended for those who are afraid of the water, have had previous difficulty in learning to swim, have never tried, or have hesitated to take a course for other reasons. Each individual will work at their own level and progress at their own rate. The primary objectives of the course are to build confidence and dissipate fear through water adjustment, breath control, coordination in skills and relaxation. Not recommended for advanced level swimmers. (F, W, SP, SU)
- PED 0131 Advanced Beginning Swimming** 0-3-1
A course designed to increase the individual's adjustment to the aquatic environment by adding to skills learned at the beginner level. Primary emphasis in the course is placed on developing relaxation, stamina, and basic coordination in fundamental swimming skills. Not recommended for the non-swimmer. Prerequisite: PED 0130 and/or the ability to jump into deep water, swim the crawl stroke a distance of 20 yards; swim a minimum of 10 yards on the back, and float on the back a minimum of 15 seconds. (W, SU)
- PED 0132 Swimming Techniques** 3-1-3
A course devoted to developing and strengthening of skills in the basic swimming strokes and related water safety and recreational skills. American Red Cross Certification in intermediate swimming may be achieved through this course. Prerequisite: PED 0130 or 0131, and/or the ability to jump into deep water, swim 25 yards using the crawl stroke, turn, and swim on back 20 yards, stop and float motionless for 30 seconds in deep water. (F, W, SU)

- PED 0133 Basic Rescue and water Survival** 0-3-1
The objective of this course is to provide the individual with knowledge and skills designed to enable him to save his own life, aid others in danger, and to respond correctly in aquatic emergencies. Major emphasis of the course is on drownproofing, a skill designed to permit survival for the longest possible time in the water, self-rescue skills, and non-swimming rescues. American Red Cross certification in Basic Rescue and Water Safety is obtainable through this course of instruction. Recommended for all swimmers, boaters, hunters, campers, pool owners, anyone who works, plays, or goes near water. Prerequisite: Jump into deep water, swim 20 yards; swim 20 yards on back; tread water or float motionless for 30 seconds. (F, 5P, 5U)
- PED 0134 Advanced Lifesaving** 0-3-1
The objective of this course is to provide the individual with the knowledge and skills designed to save his own life or the life of another in the event of an emergency. Training is not intended to be a complete lifeguard training course. American Red Cross certification is obtainable through this course of instruction. Prerequisite: 1) Perform standing front dive; 2) 500 yd. swim, using crawl, side, breast, and back strokes; 3) surface dive and 20 ft. underwater swim; 4) tread water 1 minute. (W, 5P)
- PED 0135 Fitness through Swimming** 0-3-1
A course of instruction for the fair to excellent swimmer designed to improve general physical fitness through swimming activities. The fitness program will include warm-up exercises and a self-paced cardiovascular endurance exercise program of alternate swimming and walking laps. (F, W, 5p, 5u)
- PED 0136 Water Safety Instructor Training** 0-3-1
A course of instruction leading to certification as an American Red Cross Water Safety Instructor. Prerequisite: Current Advanced Lifesaving certification.
- PED 0140 Backpacking** 0-3-1
A unique and innovative course for those who enjoy the out-of-doors. The course is designed to acquaint you with the various aspects of backpacking, to investigate the many facets of the subject and to make you feel qualified to participate in, and discuss, backpacking. (F)
- PED 0144 Basic Rock Climbing** 0-3-1
A beginning course designed to teach the fundamentals skills, knowledge of equipment, and safety of rockclimbing. Practical application of skills and knowledge is achieved through an actual climb on Table Rock or at a similar suitable location. (F, 5P)
- PED 0146 Basic Canoeing** 0-3-1
A basic course of instruction in the safe and correct handling of the canoe, rescue, and self-rescue skills. American Red Cross certification in Basic Canoeing is available through this course of instruction. Prerequisite: Ability to swim and stay afloat in deep water, fully clothed, for a minimum of 5 minutes. (F, 5P)
- PED 0147 Canoe Camping** 0-3-1
A course designed to teach the elementary skills of canoeing and camping. Emphasis in the course is placed on safety and efficiency in handling a canoe in calm to moderate water and, basic camping skills as they apply to the unique circumstances of extended canoe cruising. The course includes a two day trip on a scenic Carolina river. Prerequisite: ability to swim and stay afloat in deep water for five minutes fully clothed. (5P, 5U)
- PED 0148 Basic Whitewater Canoeing** 0-3-1
An opportunity for the beginner to experience the best whitewater in western North Carolina. Instruction will include skills of river running, safety and care of equipment. Application of skills and knowledge will be made on the school lake and the Green River. A small food fee may be required for overnight trips.

PED 0150/0151 Restrictive Physical Education**0-3-1**

A course of study designed specifically to meet the need of those individuals who cannot enroll in regular physical education courses due to temporary or permanent physical impairment. Prerequisite: Completion of the Physical Education Restriction Form and approval by the designated Physical Education faculty member, prior to enrollment. (W, 5P)

PED 0201 Volleyball**0-3-1**

A course designed to develop and strengthen skills in individual and team play fundamentals. Includes discussions of rules, playing equipment, and etiquette. Emphasis is on individual basic skill performance and development of sound team playing strategy. (W, 5P)

PED 0202 Soccer**0-3-1**

An introduction to the world's most popular team sport. Included in the course will history of the game, rules, equipment, and playing area. The student will learn the basic skills and techniques of play. (F)

PER 0240 Child Physical Education**3-0-3**

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. (5P)

PER 0241 Adult/Infant Swimming**0-3-1**

Infant swimming is a new course with an old but valuable concept. The course is designed to provide parents with the skill, knowledge, and the opportunity to teach their young child how to swim. Course objectives are safety, development of strong healthy bodies, and above all offer a happy learning experience for the young child from nine months to five years old. Note: The parent is enrolled in the course and must be accompanied by the child. (F, W, 5P, SU)

PHYSICAL SCIENCE**PHS 0160 Science for Elementary Teachers****2-0-2**

Discussion, demonstration, and practical experience of science principles for the elementary teacher. The theory and underlying principles of basic science will be discussed and demonstrated using materials which are often readily available from the normal sources of the busy teacher. Such areas as air, water, magnetism, gravity, simple machines, sound, light, electricity, rocks-minerals, and plant & animal life will be considered.

PHS 0161—Uses of Solar Energy**1-0-1**

This course will cover the development of solar energy as a power source from its inception until modern times. The basic methods of collecting, storing and using solar energy for feasible purposes will be stressed. The cost of workable systems and places of purchase will also be presented.

PHYSICS**PHY 0201 General Physics****3-3-4**

This course deals mainly with classical mechanics. Review is given to all systems of measurement with emphasis placed on the MKSA systems. Major areas of study deal with velocity, acceleration, Newton's Laws of Motion, vectors, work, energy, power and circular motion. Three laboratory hours per week. Prerequisite: Completion of, or currently taking MAT 0121 or higher. (F)

PHY 0202 General Physics 3-3-4
The major areas of study are thermodynamics, sounds, and optics; with concentration on temperature, heat transfer, vibrations, waves, light and lenses. Three laboratory hours per week. Prerequisite: PHY 0201. (W)

PHY 0203 General Physics 3-3-4
Electricity and magnetism and atomic structure are the major topics for study. Three laboratory hours per week. Prerequisite: PHY 0202. (5P)

PHY 1100 Applied Science 3-2-4
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. (5U)

PLUMBING

PLU 1011, 1012 Basic Plumbing I and II 2-6-4
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.

PLU 1110 Plumbing Pipework 2-6-4
Introduction to the tools, fittings, and small equipment used for pipe fitting. Time will be spent in the shop, where the student will learn how to work with these materials. The student will perform operations such as threading, cutting, caulking, and sweating of the various kinds of pipe and tubing used in the trade.

PLU 1115 Plumbing Codes 3-0-3
A study is made of plumbing codes and the minimum requirements for local, county, and state plumbing regulations.

POLITICAL SCIENCE

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. (5P)

PRACTICAL NURSING

PNE 1101 Nursing Fundamentals 9-8-13
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 nine systems. A knowledge of how the body moves, controls its functions, distributes food, removes waste and reproduce itself are necessary to understand disease processes and the nursing care of patients. (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)
- PNE 1104 Pediatrics** 4-0-4
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.
- PNE 1105 Maternity Nursing** 6-0-6
Introduces to the student the basic concepts of maternity care so that the highest level of health possible for every childbearing family be achieved in the broader sense of physical, emotional and social well-being. Knowledge of the anatomy and the physiology of the reproductive organs and of the development of the unborn child from conception to birth is also stressed. The student will apply beginning skills in nursing care during pregnancy, labor and delivery, the post partum period, normal newborns, and infants with disorders or special needs. (W)
- PNE 1111 Vocational Adjustments** 2-0-2
This course introduces the student to the legal aspects of nursing, professional ethics, and varied positions available to them in the field of nursing. (SU)
- PNE 1113 Medical Surgery I** 3-3-4
Introduces the student to the fundamentals of medical-surgical patient care with the central objective of performing 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 II** 2-2-3
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 III** 6-4-7
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 I** 6-0-6
A study of methods applied to calculating drug dosages by the use of the Apothecaries and Metric systems and the development of the skills in preparation and administration of medications. (W)
- PNE 1117 Pharmacology II** 4-0-4
A continuation of Pharmacology I. This course is an intensive study of drugs with the development of a thorough knowledge of drug actions, uses, dosages, and side effects. (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)

PSYCHOLOGY

- PSY 0100 Human Potential Seminar** 2-0-3
The Human Potential Seminar assists persons in becoming more self-determining, self-motivating, self-affirming and empathetic toward other persons. The seminar is a structured small group experience founded on the assumption that something is right good about each person. (F, W, SP, SU)
- PSY 0101 Personality Development** 3-2-3
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. (W, SU)
- PSY 0115 Human Growth and Development I** 3-0-3
Considers 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 0116 Human Growth and Development II** 3-0-3
Considers 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 Industrial Psychology** 3-0-3
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, SU)
- PSY 0260 General Psychology** 3-0-3
This course is designed to acquaint the student with the various aspects of psychology at the introductory level. (F, SU)
- PSY 0261 Developmental Psychology** 3-0-3
The course is designed to acquaint the students with the complex developmental processes of humans from childhood to older maturity. (W, SU)
- PSY 0262 Introduction to Applied Psychology** 3-0-3
This course explores the field of Psychology with reference to its application in human affairs. (SP)
- PSY 1100 Human Relations** 3-0-3
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. (SP)
- PSY 1101 Nursing Human Relations** 3-0-3
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)

READING

- RED 0100 Reading Proficiency** 3-0-2
Reading Proficiency is designed to help students acquire reading comprehension, inference, and vocabulary skills that will be necessary for successful competition in most college parallel and technical programs. Those persons with unsatisfactory scores on the reading portion of the college entrance test will be required to complete this course. (F, W, 5P, 5U)
- RED 0102 Reading Methods I** 3-0-3
The student will study basic phonic rules related to reading as well as methods and materials used in readiness activities. Linguistics and evaluation of readiness for reading will be studied. (F)
- RED 0103 Reading Methods II** 3-0-3
The student will study the methods, theories, and use of materials in teaching reading. Children's literature, basic reading skills and diagnostic testing of reading skills will be studied. (W)
- RED 0260 Speed Reading** 3-0-3
This course is designed to help a student become a more efficient reader by using the techniques of skimming, scanning, and study-type reading. The measurement of an efficient reader is **not** how many words he can recognize per minute; it is his ability to comprehend rapidly and retain concepts.
- RED 1100 Reading Improvement** 2-0-2
A developmental reading course for vocational students designed to increase proficiency in comprehension, vocabulary development, and reading speed. (W)

RELIGION

- REL 0160 Introduction to the Old Testament** 3-0-3
A survey or introduction to the life, literature, geography, and religion connected with the Old Testament. (F, 5U)
- REL 0161 Introduction to the New Testament** 3-0-3
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 Man** 3-0-3
A survey and comparison of the origins, developments, beliefs, or practices of the major faiths. (5P, 5U)

SOCIOLOGY

- SOC 0160 Introduction to Sociology** 3-0-3
An analysis of the society and culture dealing with social organization, control, institution, stratification, and social change. (F, 5U)
- 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, 5U)
- 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. (5P, 5U)

SOC 0215 Human Relations

3-0-3

The student will study the importance of values, personality development, self concept and basic human relation principles, such as communication, speaking and listening. (W)

TEXTILES**TEX 0101 Introduction to Textiles**

5-0-5

Survey of textiles including technical and economic history of the industry; physical and chemical processes involved in producing textile products from raw materials; unique aesthetic, physical and chemical properties of textiles and how these properties are determined by raw materials and production processes; and influence of properties of textile materials on their utilization and performance.

TEX 0102 Fiber Sciences

3-2-4

This course includes a study of the vegetable, animal, mineral and man-made fibers. Their chemical and physical properties are examined. Prerequisite: TEX 0101. (W)

TEX 0103 Yarn Forming Systems

3-2-4

Fundamentals of yarn manufacturing including fiber blends, yarn formation, yarn numbering systems, simple and complex yarns and the textured yarn processes are studied in this course. Prerequisite: TEX 0102. (SP)

TEX 0200—Introduction to Polymer Chemistry

5-0-5

Prerequisite: CHM 0103. Lectures emphasize chemical constitution and properties of fiber-forming polymers; theories of fiber structure; relationship between the molecular structure of linear polymers and physical properties of natural and man-made fibers; principles and methods for producing man-made fibers; chemical behavior of natural and man-made fibers.

TEX 0201 Fabric Forming Systems

5-0-5

The course deals with the basic forming systems including weaving, knitting and non-conventional. Fundamentals of conversion of fibers and yarns into fabrics. Fabric design, construction and raw materials are considered which relate to properties and performance of the end product.

TEX 0202 Fabric Design & Analysis

2-3-3

A study of the design and structure of the basic weaves, their common derivatives and their drafting. (W)

TEX 0203 Dyeing and Finishing

3-2-4

A course designed to familiarize the student with the basic principles involved and the procedures used for the preparation, dyeing, and finishing of natural man-made fibers, yarns and fabrics. (SP)

TEX 0204 Environmental Aspects of the Textile Industry

5-0-5

Introduction to general environmental pollution sources and effects, occupational safety and health, and typical problems specific to the textile industry. Survey of natural and synthetic fiber pollution problems with case histories of successful solutions. Management techniques for pollution control by waste reduction, treatment, and effluent control. Safety and health management for hazards in the industry.

TEX 0250 Textile Seminar

3-0-3

A seminar which serves as a forum for trends, innovations, and problems in textiles. Specialists in textiles lecture and lead discussion. Available to all textile students and open to interested individuals. (SP)

WELDING

WLD 1101 Welding I

2-15-7

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and 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 1102 Welding II

2-15-7

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

2-15-7

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

2-15-7

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 Sections 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 types of tests and testing procedures and perform the details of the test which gives adequate information as to the quality of the weld. Types of tests are guided bend, notched bend, and tensile strength test to check the quality of the work. (SU)

LIBRARY

The library provides books and other materials to accommodate many kinds of learning. A friendly and competent staff is available to offer its services to help students, faculty and community.

AUDIO-VISUAL SERVICES

The audio-visual staff offers aid to the instructor in providing flexible and varied learning experiences. Audio-visual services include equipment check-out, maintenance, production of teaching media, and assorted supplies to support the curriculum. The audio-visual specialist also provides assistance, equipment, and facilities for student projects and to student representatives of the college newspaper, yearbook, and Student Government Association (SGA).

LEARNING LABORATORY

The Learning Laboratory on campus and the Learning Center in Tryon offer educational opportunities to individuals at the 6th grade level or above. A variety of adult-oriented reading, writing, arithmetic, science, and social studies material is available. Supplementary materials in the form of film-strips, tapes, and 16 mm films are also available. Most of the material is programmed, providing a maximum opportunity for self instruction. Instructors are available to assist the student as he advances in his study program.

Adult High School Diploma Program

Isothermal Community College, in cooperation with the Polk and Rutherford County School Boards and the North Carolina State Board of Education, has developed an Adult High School Diploma Program which provides an adult the opportunity to complete high school. Requirements for graduation are:

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

Credit for the required courses can be obtained by one (or all) of the following methods:

- (1) Student may transfer credit from high school via a transcript.
- (2) If a student makes the minimum score or above on the reading placement test, he/she may elect to take challenge tests and receive credit by scoring 50th percentile or higher on selected standardized achievement tests.
- (3) Student may complete the course(s) in the Learning Lab or in an extension adult high school class.

To enter the program, a person must be eighteen years old or older, or have special permission from his County Superintendent of Education. Students may choose to study at the Learning Laboratory on the Isothermal Community College campus or at the Learning Center in Tryon or at an extension high school class. Each student in this program works independently of others, arranges his own study schedule, and proceeds at his own pace. Diplomas earned are valid for those who wish to continue their studies in institutes of higher learning.

General Interest Studies—Self-enrichment courses

Many general interest courses are available for the adult who wishes to satisfy a specific need or to spend his leisure time learning for self-enrichment. Refresher and review materials are available for the high school graduates planning to enter college and for others anticipating examinations necessary to qualify for specific jobs or licenses. A partial listing of programmed course offerings available to residents of Polk and Rutherford Counties is 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 and General Algebra, Geometry, Trigonometry, Slide Rule, Calculus, Introductory Descriptive Statistics, and Metric Systems.

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

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, Chess and Psychology.

Hours:

Library (Campus)

8:00 a.m.-9:30 p.m.

Monday-Thursday

8:00 a.m.-4:30 p.m.

Friday

Learning Lab (Campus)

8:00 a.m.-9:00 p.m.
Monday-Thursday
8:00 a.m.-3:00 p.m.
Friday

Polk County Center (Tryon)

9:00 a.m.-9:00 p.m.
Monday-Thursday



CONTINUING 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.

Aviation Ground School
Cake Decorating
Ceramics
Chorus (Mixed)
Christmas Arts
Clothing Construction
CPR
Crocheting
Decoupage
Drapery Making
Driver Education
Emergency Medical Technician
Fire Service Training
First Aid
Floral Arts
Furniture Refinishing
Hospitality Training:
 Food Service
 Nursing and Rest Home Services
Hydrocal
Income Tax
Local History
Macrame
Needlepoint
Oil Painting
Police Training
Quilting
Real Estate

Small Engine Repair
Stitchery
Tole Painting
Watercoloring
Woodworking

For certain non-credit courses the college awards Continuing Education Units. This is a nationally recognized method of recording participation in organized Continuing Education activities. One Continuing Education unit represents 10 hours of participation in an organized class activity under the direction of a qualified instructor.

Adult Basic Education

Adult Basic Education is a program designed to improve a person's skills in reading, writing, and arithmetic. These skills are not developed as isolated bits of knowledge, but are related to practical situations adults deal with in everyday life. The materials used are designed for adults and range from materials to teach reading through those preparing students to enter the high school program.

Classes usually meet for a three-hour session twice a week. In order to accommodate a variety of student needs, both daytime and evening classes are scheduled. In addition, some ABE classes are held in neighborhoods where students live or at their places of work. There are no fees for these classes.

Upon completion of basic instruction, the student is eligible to study toward an Adult High School Diploma in the Learning Lab or in an extension adult high school class through the Special Needs program.

Handicapped and Special Needs

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

An instructor is provided to go to the homes of handicapped persons to give training in floral design and technique. This program attempts to equip individuals with the skills necessary to become gainfully employed or to set up their own businesses.

SPECIAL NEEDS program is designed to meet the needs of persons who have not completed a high school education. This program allows a person to enter at whatever level he or she has achieved, either in school or out of school, and to complete requirements for an Adult High School Diploma.

HRD Program (Manpower)

The HRD (Human Resources Development) Program is presently operating in 46 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. Five classes are held each year.

There are two components: (1) Basic 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-setting 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.

ADMINISTRATORS AND FACULTY

Joyce Abernethy BS, Gardner-Webb College	Learning Lab Instructor
Marvie Alexander	Independent Studies
Arnold Atchley General Motors Training School	Auto Body Repair
Edward L. Barrier AB, University of North Carolina, MM, University of Tennessee	Dean of Continuing Education
Raleigh Biggerstaff AA, Lees-McRae College, AB, M.Ed., University of North Carolina	English
Peggy Blanton BA, MAT, Winthrop College	Mathematics
Fred Burgin BS, NC State University, MA, Appalachian State University	Science
Mary B. Burgin BS, East Carolina University, MA, Appalachian State University	Early Childhood Education
Leonard Byers	Auto Mechanics
Barbara P. Callahan BA, Wake Forest University, MAT, Converse College	English
Thomas M. Callison AB, Wofford College, MA, Appalachian State University	Director of Cooperative Education
Steve L. Chrisman BS, Carson Newman College, MA, Appalachian State University	Business
Ann Coffield Commercial Certificate, Winthrop College	Director of Adult Services
Robert Conley AAS, Isothermal Community College, BT, MA, Appalachian State University	Director of Placement/Counselor
Rita Conner BS, Western Carolina University	Nursing
Steve Coyne BA, Catawba College, MACT, University of North Carolina Chapel Hill	English
Michael Croussore BPE, Purdue, MA, University of Kentucky	Physical Education
Royce Ellis BS, University of Denver, M.S., George Peabody	Director of Library
Ben E. Fountain, Jr. AB, M.Ed., Ph.D., University of North Carolina Chapel Hill	President
Clara Fowler BS, Barber-Scotia, MA, Appalachian State University	Business
Charles Francis BA, MAED, East Carolina University	Counselor, Special Services Program
Ann Freeman	Public Information Officer
Betty Gabriel BS, Appalachian State University	English
Deborah Gaddy B.A. Western Carolina University	ABE Instructor
Jim Garren BS, MA, Appalachian State University	Director of Recreational Activities/ Physical Education
Treva E. Godfrey	Administrative Assistant to Vice President
AAS, AA, Isothermal Community College	

- Betty Gordon** Music
BA, Columbia College; MAT, Duke University
- James E. Graham** Business
AS, Paducah, Jr. College, BS, MA, Middle Tennessee State University, MS, University of Tennessee
- Herman Greene** Learning Lab Instructor
BS, Wofford, MA, Furman University
- James L. Hall** Mathematics
BS, MA, Appalachian State University
- Frances Haney** Business
BS, MA, Appalachian State University
- Linda Hankins** Coordinator, ABE and Extension High School Program
BA, Duke University/MA, University of Michigan
- Burton Harris** Electrical Installation & Maintenance
BS, University of Tennessee
- Donna Harrison** Director, Special Services Program
BS, Mars Hill College; MA, Appalachian State University
- Mary Ann Head** Coordinator, Learning Lab
BA, University of North Carolina Charlotte
- Wesley Henderson** Social Science
BS, University of Mississippi, MA, State University of New York
- Charles A. Holcombe, III** Registrar/Director of Financial Aid
BA, High Point College, M.Div, Emory University
- Wayne Hutchins** Science
AB, Duke University, MAT, University of North Carolina
- Rhea Jackson** Cosmetology
Fayetteville Beauty College
- Alfred Johnson** HRD Instructor
BA, Livingstone College
- Catherine Jolley** Controller
- Carol Jones** Business
BS, Gardner-Webb College; MSBE, UNC-Greensboro
- John Karriker** Chemistry
AB, Catawba College, Ph.D, University of South Carolina
- Martha Layton** English
BA, Carson-Newman, MA, East Tennessee State
- Edward, J. T. Lima** Electronics
BS, RE, Indiana Institute of Technology
- Helyn Lowery** Business
BA, Limestone, MA, Ed.S, Appalachian State University
- Lowery Luckadoo** Welding
Certificate, Isothermal Community College
- Ralph McNabb** Auto Mechanics
BA, Lenoir Rhyne College
- Marion Michalove** Director, HRD Program
BS, Duke University
- Dillard L. Morrow** Senior Vice President
BS, MA, Western Carolina University, Ed.D, North Carolina State University
- Elizabeth Page** Learning Lab Instructor
BS, Wake Forest University
- John F. Paul** Vice President for Student Affairs
BA, Cornell College, MA, George Washington University

- S. Jerry Poole** Mathematics
 AB, MAT, Emory University
- Linda Porter** Job Placement Specialist, Human Resources Development Program
 BS, Old Dominion University
- William R. Rogers** Social Science
 BS, MA, University of Tennessee
- Judy Shapiro** Nursing
 RN, New England Baptist Hospital School of Nursing
- Gary Shipley** Science
 BS, MA, East Tennessee State University
- Marilyn Shore** Counselor
 BA, MA, Appalachian State University
- Vivian Sitton** Coordinator, Independent Studies
 BA, MA, Appalachian State University
- Eugene McKenzie Smith, Jr.** Audiovisual Specialist
 AA, Southeastern Community College; BS, Pembroke State University, MA, Appalachian State University
- James D. Turner** Applied Science
 BS, Western Carolina University, MA, East Carolina University
- Neilan Underwood** Electronics
 Electrical Technology US Department of Education, US Air Corps Technical Institute, Refrigeration and Air Conditioning Training Corporation
- Sheila Van Dyke** Adult Education Community Services Program
 University of North Carolina Chapel Hill
- Ronald Venhuizen** Social Science
 Athletic Director
 AB, Hope College, MA, Arizona State University
- Bob Waters** Cosmetology
 Southeastern College of Beauty Culture, Dale Stroble University of Cosmetology
- David Whisenant** Business
 BS, MA, Appalachian State University
- Carl Williams** Director, ICC Polk Campus
 BS, MS, MA, Louisiana State University
- Nancy Womack** English
 BS, Western Carolina University, MA, Florida Technological University
- Wilbur M. Wright** Director of Admission/Evening Programs
 BS, MA, Appalachian State University

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