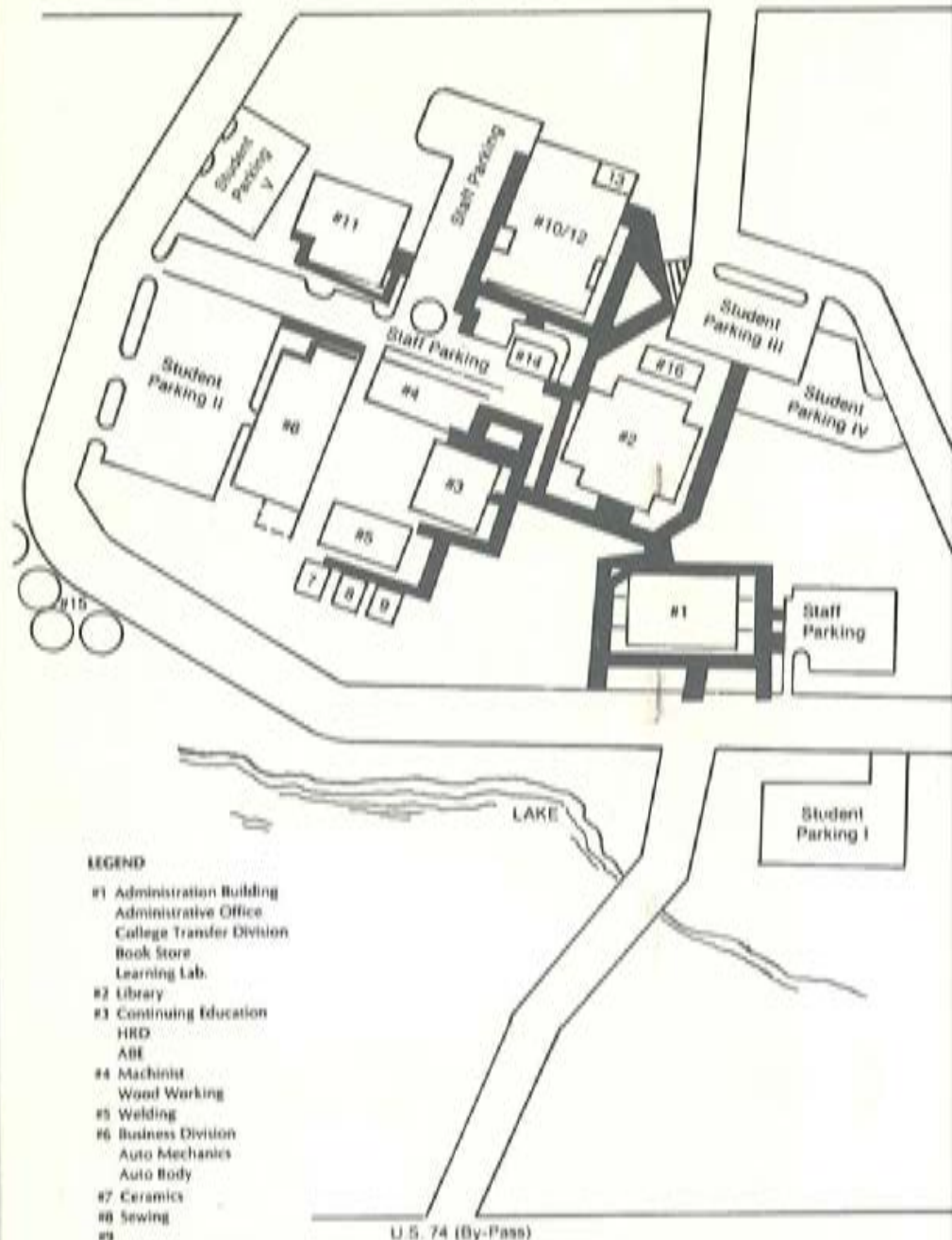


An aerial photograph of the Isothermal Community College campus. The image shows a large, multi-story building with a light-colored roof, surrounded by green lawns and trees. A winding road or path leads through the campus, crossing a large body of water. In the background, there are rolling hills and more greenery. The overall scene is peaceful and well-maintained.

Isothermal Community College

TWENTY YEARS OF COMMUNITY SERVICE
1964-1984

Piney Ridge Road



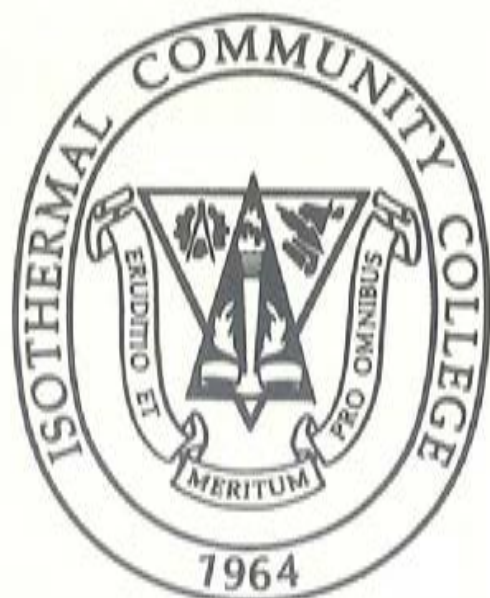
LEGEND

- #1 Administration Building
Administrative Office
College Transfer Division
Book Store
Learning Lab.
- #2 Library
- #3 Continuing Education
HRD
ABE
- #4 Machinist
Wood Working
- #5 Welding
- #6 Business Division
Auto Mechanics
Auto Body
- #7 Ceramics
- #8 Sewing
- #9
- #10/12 Student Center/
Physical Educ. Bldg.
Student Personnel Offices
Physical Education Staff
Audio-Visual
- #11 Occupational Building
Technical-Vocational
- #16 Tennis Courts
- #13 Cosmetology
- #14 Amphitheater
- #15 Rest Area

U.S. 74 (By-Pass)

Isothermal Community College

GENERAL CATALOG 1984-85



**Spindale, North Carolina 28160-0804
704-286-3636**

VOLUME XIII

JANUARY, 1984

Published annually by Isothermal Community College. Entered as Special 4th Class Book Rate at the Post Office at Spindale, North Carolina. Fourth class book rate postage paid in Spindale, North Carolina 28160.



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.

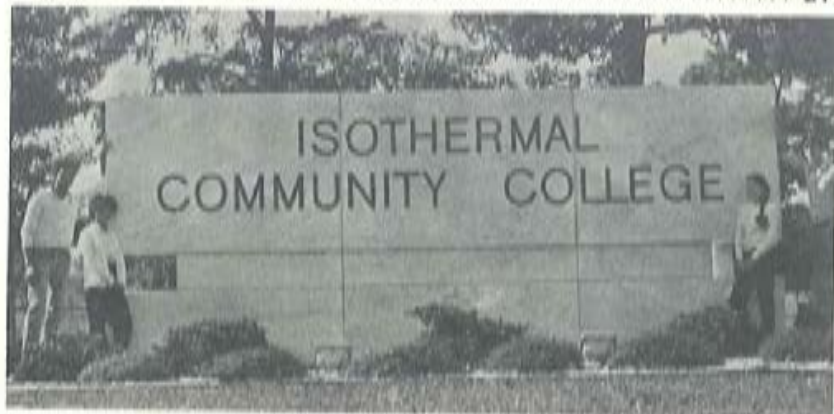
We reaffirm our commitment to those principles. We assert anew our determination to seek excellence in skill training and education for those citizens choosing to enter our open door to learning.

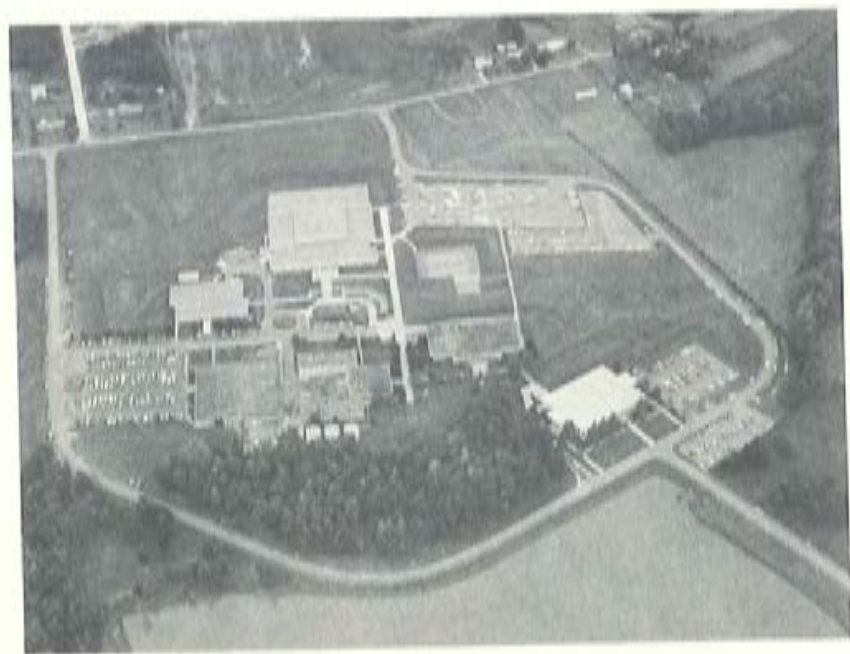
A handwritten signature in cursive script that reads "Ben E. Fountain, Jr." The signature is written in dark ink and is positioned above the printed name.

Ben E. Fountain, Jr.

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ISOTHERMAL COMMUNITY COLLEGE 1984-85 CALENDAR

FALL QUARTER (55 days)

Aug. 29	Wednesday	Faculty Workshop
Aug. 30	Thursday	Freshman Orientation/Registration
Aug. 31, Sept. 3	Friday, Monday	Labor Day Holidays
Sept. 4	Tuesday	First Day of Classes
Sept. 10	Monday	Last Day to Add or Register
Oct. 7	Sunday	Founders Day
Oct. 15-19	Monday-Friday	Mid Term Week
Oct. 26	Friday	Last Day to Drop With "WP"
Nov. 15, 16, 19	Thursday, Friday, Monday	Final Exams
Nov. 20	Tuesday (12:00N)	Faculty Checkout
Nov. 20, 21, 22, 23	Tuesday-Friday	Thanksgiving Holidays

WINTER QUARTER (55 days)

Nov. 26	Monday	Registration
Nov. 27	Tuesday	First Day of Classes
Dec. 3	Monday	Last Day to Add or Register
Dec. 20-Jan. 1	Thursday-Tuesday	Winter Holidays
Jan. 2	Wednesday (8:00 a.m.)	Classes Resume
Jan. 14-18	Monday-Friday	Mid Term Week
Jan. 25	Friday	Last Day to Drop With "WP"
Feb. 20, 21, 22	Wednesday, Thursday, Friday	Final Exams
Feb. 25	Monday (12:00N)	Faculty Checkout

SPRING QUARTER (55 days)

Feb. 27	Wednesday	Registration
Feb. 28	Thursday	First Day of Classes
Mar. 6	Wednesday	Last Day to Add or Register
Apr. 1-4	Monday-Thursday	Mid Term Week
Apr. 5-14	Friday-Sunday	Spring Holidays
Apr. 15	Monday (8:00 a.m.)	Classes Resume
Apr. 19	Friday	Last Day to Drop With "WP"
May 21, 22, 23	Tuesday, Wednesday, Thursday	Final Exams
May 24	Friday (12:00N)	Faculty Checkout
May 26	Sunday	Graduation

SUMMER QUARTER (50 days)

June 3	Monday
June 4	Tuesday
June 10	Monday
July 1-5	Monday-Friday
July 15-19	Monday-Friday
July 26	Friday
Aug. 16, 19	Friday, Monday
Aug. 20	Tuesday (12:00N)

Registration
First Day of Classes
Last Day to Add or Register
Summer Holidays
Mid Term Week
Last Day to Drop With "WP"
Final Exams
Faculty Checkout

1ST SUMMER SESSION

June 3	Monday
June 4	Tuesday
June 6	Thursday
June 28	Friday
July 1-5	Monday-Friday
July 15	Monday

Registration
First Day of Classes
Last Day to Add or Register
Last Day to Drop With "WP"
Summer Holidays
Final Exams

2ND SUMMER SESSION

July 11	Thursday
July 16	Tuesday
July 18	Thursday
Aug. 2	Friday
Aug. 19	Monday
Aug. 20	Tuesday (12:00N)

Registration
First Day of Classes
Last Day to Add or Register
Last Day to Drop With "WP"
Final Exams
Faculty Checkout

**ISOTHERMAL COMMUNITY COLLEGE
BOARD OF TRUSTEES**

APPOINTED BY COUNTY BOARD OF EDUCATION

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

APPOINTED BY COUNTY COMMISSIONERS

Mr. Jack Buchanan (Chairman)—Forest City, NC
Mr. A. Jervis Arledge—Rutherfordton, NC
Mr. Don H. Lovelace—Forest City, NC
Mr. Joe A. Miller (Vice Chairman)—Cliffside, NC

APPOINTED BY THE GOVERNOR OF NORTH CAROLINA

Mr. Harold Burrell—Tryon, NC
Mr. J.D. Cooley—Forest City, NC
Mr. M.B. Robinson—Forest City, NC
Mrs. Beckie E. Randall—Forest City, NC
Miss Lisa R. Moore—President, Student Government Association
1983-84 ex-officio
Mr. Berlon Jedediah Short, Jr.—President, Student Government Association
1982-83, ex-officio

**RUTHERFORD COUNTY
BOARD OF COMMISSIONERS**

Beaty L. Bass	Harvey Powell	Dewey Hennessee
Marion Michalove		Donald E. Holland

**POLK COUNTY
BOARD OF COMMISSIONERS**

Henry Huntsinger	Paul Butler	Geoffrey Tennant
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ADMINISTRATIVE OFFICES

Office of the President

Ben F. Fountain, Jr.	President
Glenda Scruggs	Secretary to the President
Mary Burgin	Director of Admissions/Development
Susan Cole	Assistant for Public Information

Ann Freeman	Assistant for Development
Rosemary Hendrick	Assistant for Planning
Augusta M. Hyde	Assistant for Special Projects
Fred J. Eason	President Emeritus

Office of the Vice President for Administration

Dillard L. Morrow	Vice President for Administration
Charles A. Holcombe III	Director, Financial Aid
Catherine Jolley	Controller
James S. Martin	Director, Maintenance/Security
Wilbur Wright	Registrar/Director, Institutional Research

Office of Vice President for Faculty and Programs

Walter Timm	Vice President for Faculty and Programs/ Dean, Technical-Vocational Division
Donna Harrison	Director, Special Services Program
John Karriker	Dean, College Transfer Division
Helen Lowery	Dean, Business Division
Faye McIntyre	Evening Director
Carl Williams	Dean, Continuing Education
Marion Michalove	Director, Human Resources Development Program

Vice President for Polk County Campus

Gordon Pyle	Vice President
Geoffrey Balkam	Associate Vice President
Edward L. Barrier	Registrar/Evening Director

Office of Vice President for Student Affairs

John F. Paul	Vice President for Student Affairs
Robert Conley	Counselor/Director of Placement
Carolyn Harrison	Counselor/Director of Career Development
Jim Garren	Director of Community and Recreational Activities
Royce Ellis	Director of Library
William B. Bynum	Director, Old Tryon Collection
E. McKenzie Smith	Audiovisual Specialist

INTRODUCTION

Historical Sketch

Interest in a community college for Rutherford and Polk Counties began even before a statewide community college system was established. In 1963 the General Assembly passed Chapter 115A, General Statutes of North Carolina, establishing the Department of Community Colleges, and shortly thereafter the Rutherford County Commissioners appointed a committee to study and promote plans for a community college in the county. Their preliminary report, submitted in March 1964, recommended that the proposed college serve Rutherford and Polk Counties, that a site south of Spindale be chosen, and that the college be financed by a bond issue and a special tax levy. On September 5, 1964, Rutherford County citizens voted by a margin of over 16 to 1 in favor of a \$500,000 bond issue for construction of the college, to be matched by state funds, and a property tax increase to pay the county's portion of the operating costs.

The college was chartered on October 1, 1964 by the State Board of Education. The first meeting of the Board of Trustees was held on November 17, and on November 23 the board approved the name "Isothermal Community College." Fred J. Eason was chosen by the board as the college's first president on December 22. On July 1, 1965, the Industrial Education Center, which had been operating since 1962 as an extension of Gaston Technical Institute, became the vocational and technical division of Isothermal Community College. The college thus began operation with 66 students, some of whom received the first diplomas issued by Isothermal in exercises that August. August 1965 was also the culmination of a fund-raising drive by Rutherford and Polk County citizens and businesses for the purchase of land for the Spindale campus.

Until the new campus was ready, the vocational-technical, college parallel (begun in September 1966) and adult education divisions were scattered in a number of temporary locations in Avondale, Spindale, and Caroleen. College parallel and vocational-technical education each had about 100 students. The adult education program was boosted by the creation of the High School Diploma program in May 1967. That same year, I.C.C.'s Polk County program began with continuing education courses in Tryon.

The first three buildings on the Spindale campus opened on April 8, 1968, and the college's first full-fledged graduation exercises were held on August 30. The lake and initial landscaping of the campus were completed by April 27, 1969, when the college's charter was presented. By that time 554 full-time students were enrolled. On January

11, 1970, the college was accredited by the Southern Association of Colleges and Schools.

Expansion continued; in the fall of 1972 a new Occupational Education Building was opened. A satellite program for Polk County was approved in September 1974, and in November 1974 Rutherford County voters passed a \$1.8 million bond issue for additional construction on the Spindale campus. This enabled construction of a new vocational building with electronics facilities, opened in September 1968, and the student center/physical education building, opened in the spring of 1979. Both buildings were dedicated on October 21, 1979.

President Eason retired effective June 30, 1978, and the Board of Trustees selected Dr. Ben E. Fountain, Jr. as his successor. Dr. Dillard L. Morrow served as acting president until Dr. Fountain could assume his duties in September. Growth in facilities continued with help from local business and industry, which made possible such projects as the Individualized Instruction Center, opened in the fall of 1979, and the marble marker at the entrance to the campus, completed in November 1979. Generous support was also evident in the creation of the Robert W. Eaves Teaching Award, established in 1982 by the widow of a noted Rutherford County educator.

The Polk County Campus also progressed, beginning an independent study program and college parallel courses in 1976, and obtaining classroom space in the old Jervey-Palmer Building in Tryon. Dr. Gordon B. Pyle became Vice President/Director of the campus in the fall of 1980, and under his direction alterations of the building were completed to make it more usable. A permanent site for the campus became available in October 1982, when the Polk County Commissioners granted the college 10½ acres near St. Luke's Hospital. This new site was dedicated on July 25, 1983.

Isothermal Community College has continued to expand its special programs for the community as well as its physical plant. Some examples are Rutherford County's first Industrial Fair (April 1980), Community Arts Festival and Health Fair (both April 1982), Local History Week and opening of the Old Tryon Historical Collection in the library (October 1982), and High Technology Week (April 1983), besides numerous other cultural and educational events.

As Isothermal approaches its twentieth anniversary, the college continues to strive for more complete fulfillment of its goal: to provide wider educational opportunities for all members of the community.

Purpose and Objectives

Statement of Purpose of College. Isothermal Community College is a comprehensive two-year institution whose purpose is to provide appropriate, economical and convenient learning opportunities for all citizens beyond the compulsory high school age and who have left the public schools. The various programs include two-year college parallel and technical programs, one-year vocational programs, certificate programs, a variety of continuing education programs for adults, and guidance services for in-school and out-of-school citizens. Isothermal Community College offers help for citizens in developing and improving the understandings, dispositions, skills, and habits required for living more effectively.

The major aims of this institution are to provide:

1. Two years of college parallel education which is transferable to four-year colleges and universities.
2. Two years of technical education appropriate to the needs of the individual and the community.
3. Vocational education for persons desiring to prepare for a trade or upgrade their skills.
4. Adult programs based on community needs such as basic education, high school equivalency certificate or diploma, self-enrichment, and cultural and community service programs.
5. A program of guidance and instruction which will help all citizens become more effective members of a democratic society.

Accreditation

Isothermal Community College is accredited by the Commission of the Southern Association of Colleges and Schools.

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 the community.

Library Hours:

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

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

Holiday and Quarter Break Hours Posted.

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.-10:15 p.m., Monday through Thursday. Course schedules for the evening classes are published each quarter and are available upon request from the Student Services Office.

Office Hours

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

Nondiscrimination Statement

Isothermal Community College is dedicated to equality of opportunity for its staff, students, and community. Isothermal Community College does not discriminate against students, employees or 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:

Tom Sherman, 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 the Director of Admissions to provide general information and a tour of the campus.

You may arrange a tour of the campus by writing or calling the Director of Admissions. 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. College placement battery.
4. Interview with counselors includes review of test scores and other helpful pre-registration information.
5. North Carolina high school graduates must have passed the N.C. Competency Test.

Vocational Applicants:

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

Practical Nursing applicants are required to be high school graduates or have a high school equivalency diploma.

Admission procedures for the Practical Nursing Program require each student to:

1. Complete an application for admission.
2. Take the Comparative Guidance and Placement Test.
3. Take the Otis IQ Test and score 100 or above.
4. Provide a completed physical examination given by a physician.
5. Obtain (3) references (other than family) and have them complete Isothermal Community College Reference Forms.
6. Provide high school transcript or GED Equivalency Certificate and transcripts from previous education above the high school level.

Final selection is made after a personal interview with the Nursing Staff.

All **Child Care Worker Program** applicants must be high school graduates or have been awarded a high school equivalency certificate in order to be eligible for admission.

The admission procedure to the Child Care Worker Program requires that all students submit the following:

1. A completed application for admission.
2. A transcript(s) of all previous education.
3. Completion of the College Placement Battery.
4. Completion of Placement interview. Applicants will not be permitted to register for classes until their test scores have been reviewed and course recommendations are made by the Student Personnel Counseling Staff.

Cosmetology applicants must have completed the ninth grade. They must meet the requirements for vocational applicants.

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

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. Isothermal Community College will accept any transfer student who has maintained satisfactory conduct 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.

Transient Students

Transient Students who are enrolling at Isothermal Community College need only to submit an application to the Director of 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 Director of Admissions 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. Conditions must be met within a period of four calendar weeks from the day of registration or the student may be withdrawn from the college.

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 Dean of Continuing Education and Extension Programs for specific information.



ACADEMIC PROCEDURES AND POLICIES

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/her first year in the College through the final quarter. It must be emphasized that the staff of the College will gladly assist students with details of their program or other academic problems, but that such assistance does not relieve the students of their individual responsibility for meeting the requirements and observing the regulations of the College.

Registration

The college operates on the quarter system. Registration dates are listed in the College Calendar of this catalog. All students are required to register in accordance with the procedure and calendar established for the current year. Registration for classes which begin at a time other than the beginning of a quarter will be completed during the first class meeting.

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

Program Changes

A student desiring to change programs should request a Division Change Sheet (DCS) from a counselor or Evening Registrar as appropriate. 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 Services Office, 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 do not continue in their classes 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 are anticipating a tuition refund must submit reasons for dropping in writing to the Vice President for Student Affairs.

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 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 for the ASSOCIATE OF ARTS DEGREE, ASSOCIATE OF FINE ARTS DEGREE, ASSOCIATE OF SCIENCE DEGREE, and the ASSOCIATE OF APPLIED SCIENCE DEGREE follows:

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

FOR THE DIPLOMA PROGRAMS

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 Vice President for Student Affairs 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 chairperson an appeal of 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 Senior Vice President. No change of grade will be made except as a result of the Senior Vice President'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 Hours
College Parallel	19 credit hours
Vocational	21 credit hours
Technical	21 credit hours

Approval from the Senior Vice President is required to register for more than the maximum of hours at this or any other institution.

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

Class Attendance

Regular class attendance is a student obligation. A student, furthermore, is responsible for all the work, including tests and written assignments, and for 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 class attendance policy. This attendance policy is explained in detail at the first class meeting. Explicitly included in the policy is the relationship of absences to grades.

A student will 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.

Progress Policy

*The "P" (PROGRESS) grade allows a student in an individualized instruction course, who has attended regularly and made satisfactory progress, to continue the course in a subsequent quarter until all the course requirements are met. The student must reregister for the course in the subsequent quarter. The hours credit and hours attempted will not be given until the course is completed. The grade of "P" may be assigned only the first quarter the student enrolls in an individualized course. Exceptions to continue the "P" into a third quarter must have the written permission of the instructor and the Division Chairperson. The last grade received in that course will be the only and final grade for the course.

A grade of "P" may not be awarded to veterans nor to veterans' dependents receiving VA educational benefits.

Records of Progress

Records of progress are kept by this institution on veteran and non-veteran students alike. Progress records are furnished the students, veterans and non-veteran alike, at the end of each scheduled school term.

Incomplete Policy

A grade of "I" is assigned where the course work is incomplete. This grade must be removed by completing the course 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.

Auditing Courses

Students who wish to audit courses must register through the regular procedure. 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/her advisor, must be registered for the course and in good standing.
2. If the exam is failed, she/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 Services Office.
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 instructors.
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 the drop-add deadline, she/he will receive a grade of "WP" (dropped passing) or "WF" (dropped failing). A "WF" is averaged as an "F" in computing the grade point average. The grade "WP" cannot be awarded after the published deadline, generally one week after mid-quarter, unless approved by the Senior Vice President.

GRADUATION

Requirements

Requirements for the degree or diploma will vary according to the curriculum. Students should refer to the required courses in the catalog which apply to their programs so that they 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 and at least two of the last three quarters of course work must be earned at Isothermal Community College or at a member institution of the North Carolina System of Community Colleges.

Graduation Procedures

Students are expected to file graduation applications with the Registrar's Office at least one quarter preceding the completion of degree requirements. Commencement exercises to award degrees, diplomas, and certificates to students in respective divisions are at the conclusion of the Spring Quarter. A diploma fee is charged to each graduating student. 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 by the Senior Vice President. Students should submit their written excuses at least one month in advance of the commencement exercises.

Graduation With Honors

Students who complete a degree or diploma program with a quality point average of 4.0 will be graduated with High Honors. The student who earns a quality point average of 3.50 to 3.99 will be graduated with Honors.

Class Rings

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 and is based on current 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, and they receive certificates suitable for framing, as well as being eligible for placement service when they seek employment.

STUDENT SERVICES

Transition to the college environment creates many challenges for students. ICC provides a professional staff, varied services, and attractive facilities to assist its students in meeting these challenges. Student Services is committed to the philosophy of offering opportunities to maximize the personal development of its students across the life span—the recent high school graduate, the mid-life adult, the person seeking retraining, and the older citizen. Services have been, and are being, developed in response to the expressed individual needs of the students. The staff endeavors to establish and maintain positive relationships with students, members of the faculty, the administration, and the community.

The Student Center

The hub of student interest and activity is the Student Center which is designed to stimulate social interaction as well as relaxation. Located in the Student Services Building, the attractive Center embodies a brightly decorated lounge, 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 game room.

Adjoining the Student Center are Student Services offices and personnel.

Orientation Program

All new students are expected to participate in the Orientation Program designed to facilitate their adjustment to the College's philosophy, programs, and standards. Special emphasis is placed on the facilities, services and resources of the College and the encouragement of the students to make full use of these opportunities. Students, in addition, are assisted in becoming better able to solve problems commonly experienced by students beginning college life.



Testing Services

Before the new student enrolls in College Parallel, Technical, Early Childhood and Practical Nursing (LPN) programs, s/he is required to take the Comparative Guidance and Placement Test (CGP) which measures skill levels in reading, grammar, and mathematics. In a pre-admission interview with a counselor, the student subsequently learns whether or not his/her scores indicate a need for special preparation before credit courses are taken. The student's success is enhanced by an appropriate initial placement in classes. Prior to each quarter, a schedule of test dates is available and prospective students may call Student Services for further information.

The General Educational Development Program (GED) test is available to persons who have not completed their high school education. A North Carolina High School Equivalency Diploma will be awarded upon completion of the series of tests in Writing Skills, Social Studies, Science, Reading Skills and Mathematics. Individuals interested in applying for the G.E.D. Program should make application to be tested at the Office of Student Services. Tests are administered on week days or evenings for a fee of \$5.00.

Other tests related to achievement of personal, academic, and vocational goals are available. Students who wish to explore any of these tests should contact a counselor. The testing unit, in addition, maintains information about a variety of national testing programs.

Counseling Center

The professional counseling staff provides a variety of services to students and faculty in its active Counseling Center. Viewed as an educational and supportive service, counseling takes place on an individual basis or, when appropriate, in groups. Counselors offer assistance with the educational process, building of self-concept, improvement of interpersonal relationships, and increasing skills in self-management.

Counselors are available in the Student Services Building from 8:00 a.m. to 4:30 p.m. weekdays. Students may call 286-3636, ext. 244, for an appointment or drop in to see a counselor.

Job Placement

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 education curriculums.

Career Development Center

Look where you're going! Your career affects your life more than anything else does. For that reason, you really should know what you're getting into rather than just drifting into a career. The majority of people who fall into a career find their lives are not as satisfying or complete as they could be. Don't be like most people! Check out where you're going and find a career that is right for you.

You must take two very important steps in order to really know what career is best for you. First, you must discover your best talents and make clear what you really want in your career and your life. Second, you need to learn what your best occupational choices are. Only then can you realistically decide what career suits you best.

Isothermal Community College has a newly-established program of career development services that can assist you in choosing and moving toward a career that is right for you. These services include:

- A Career Development Center staffed by a career assistant and offering a wide variety of occupational information.
- A career planning course, *Career Decision Making and Life Planning* — EDU 0161, 3 credits.
- A course focusing on lifelong skills used in the job search, *Job-Seeking Skills* — EDU 0162, 1 credit.
- Materials for interest-testing and other activities related to career decision-making.
- A career development counselor to assist you in the process of career decision-making.
- Mini courses on topics such as skills identification, personality and interest assessment, resume writing, interviewing skills.

Invest time and effort now to choose and implement a career that is right for you. Seldom will another investment give you the same payoff in your life!

For more information, call ext. 266 or visit the Career Development Center which is located off the lounge of the Student Services Building (No. 10), Room 15.

Health Services

The college has no facilities for medical treatment other than for minor first aid and assumes no responsibility for injuries or sickness of students.

First aid supplies are located at secretaries' desks in each building and in the shop areas.

Students suffering from acute illness or injury requiring more than minor first aid treatment will be taken to the emergency room of the Rutherford Hospital, Inc. The student will be responsible for all costs incurred in such treatment. In all cases involving serious illnesses or accidents, the next of kin will be notified.

Students are encouraged to provide themselves with medical insurance to cover illness/injury. Insurance covering accidents at school or in route to or from school is available through the school. The current cost is \$5.00 per year.

Building construction on campus permits the use of a wheelchair in each building. Inter-building movement by wheelchair is possible, but slightly more difficult.

Veterans 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 Certificate 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
¾ 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
¾ time	16-21 clock hours
½ time	11-15 clock hours

Veterans and other eligible persons certified for Veterans Administration 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.

Housing

The College does not provide living accommodations for students. The student is responsible for making his/her own housing arrangements. The College assumes no responsibility for rental negotiations between student and homeowner.

Mail

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



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 is the chief executive of the Student Government Association 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

The following clubs and activities are chartered on the campus:

Afro-American Club
Bible Club
College Singers
Creative Hobbies Club
Future Secretaries Association
Good Earth Ecology Club
Interclub Council
Intramural Athletics
Karate Club
Patriot Toastmasters Club
Phi Beta Lambda
Phi Theta Kappa
Publications—Sentinel (Yearbook)
 Patriot (Newspaper)
 Anuran (Poetry Magazine)
Student Cosmetology Association
Technology Club

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 NJCAA and the Western Tarheel Conference.

SCHOOL COLORS: White and Blue

SCHOOL MASCOT: Patriot

GENERAL COLLEGE REGULATIONS & POLICIES

Conduct

The personal conduct of the college student is subject to the moral and legal restraints found in any law-abiding community. 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/her 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 visitor parking areas are shown on the Campus Map (inside cover) as Staff Parking. These 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, IV, and V 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 his/her destination. 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 5:00 p.m. and 6:00 p.m.-8:00 p.m. Monday through Thursday; 9:00 a.m. to 3:00 p.m. Friday; additional hours as posted at the beginning of each quarter.

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.

If books continue to be approved for use as a text, used books will be purchased by the bookstore on registration day each quarter. 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 Services Office. There will be a charge for the replacement.

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).

TUITION AND FEES

Isothermal Community College receives financial support from local, state, and federal sources, allowing each student an educational opportunity at a minimum cost. Tuition fees are set by the State Board of Community Colleges 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*	\$51 per qtr.*	\$255 per quarter
Less than 12 qtr. hours*	\$4.25 per qtr. hr.	\$21.25 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 Board of Community Colleges.

Student Activity Fee

A student activity fee of \$10, \$10, \$8 is charged Fall, Winter, and Spring quarters respectively for students registering for *nine hours* or more on the Spindale campus. Enrollees in mini courses, and other off campus courses will not be charged the Student Activity Fee. Any student 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 co-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/her 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 estab-

lishing 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 exempt from the payment of curriculum tuition, student activity fee, and extension registration fees in accordance with Chapter 981 or the 1977 Session Laws.

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 when the course or curriculum fails to materialize. Under these circumstances, the student's tuition shall be refunded. Requests for refunds must be in writing.

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 Needs Analysis System, the 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/her family. Recipients must maintain satisfactory progress in their 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 Services Office. Listed below are the programs of financial assistance that are available at the College.

Pell Grants (formerly the Basic Educational Opportunity Grant (BEOG))

Pell 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 of four has an annual income of \$18,000 or less, the grant will be awarded. The average grant for Isothermal students has been \$490 per academic year. Applications for the Pell 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 \$2,000 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 number of hours a student can work each 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).

Scholarship Loan Fund for Prospective Teachers of North Carolina

This loan program is administered through the State Department of Education. Maximum loan consideration is \$900 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 Services 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 their education. To be eligible, the student must be *enrolled* as a full time curriculum student in good standing with a grade point average that will enable him/her 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 may make application, even though only those applicants with the greatest financial need can expect to receive this grant. For 1982-83 no separate NCSIG application is required. Instead, all applicants from North Carolina should state on the Family Financial Statement (FFS) item #6666 representing College Foundation, Inc., Raleigh, N. C. and in the same item #76, Code #3109 representing Isothermal Community College, Spindale, N. C. as the agency and institution to which the data should be sent.

Scholarships

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 Areas High School Scholarships

Dora Yarn Mill

East Rutherford High School

Afro-American Club

Student Council

East Area High School Scholarship

Gamma Beta Chapter of the Iota 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

Robert Spratt Memorial Scholarship

R. S. Jayettes

Rutherfordton Hospital Auxiliary

Rutherford County Farm Bureau

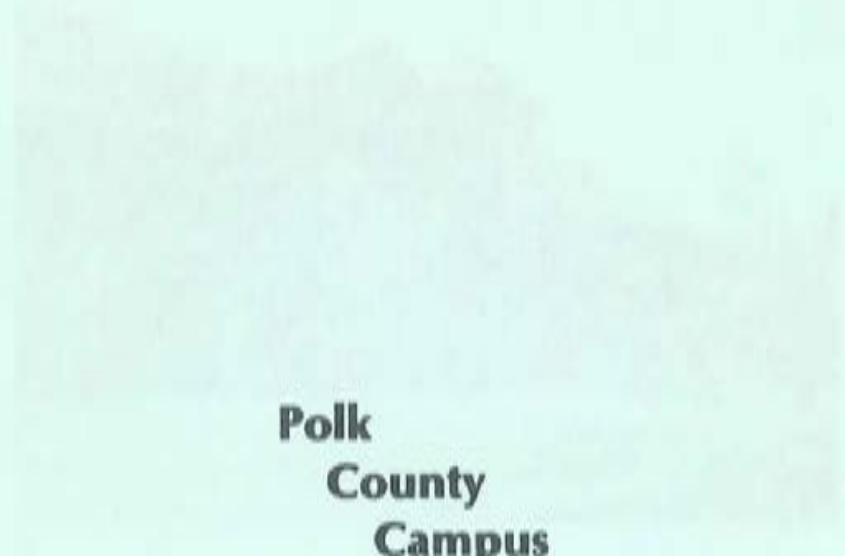
Forest City American Legion

North Carolina Lung Association

General Fireproofing of Forest City

Lutz-Yelton Scholarships





Polk County Campus



**Polk County Campus
Isothermal Community College**

The campus has expanded study opportunities in Polk County by offering a wider selection of credit and noncredit courses. Subjects now available include a wide range of college parallel and occupational studies. A full freshman program with regular full-time faculty members offering both day and evening classes is available. The schedule will run Monday through Saturday as needed. Students will be able to complete at least one full year of college. The student may in some cases complete their program at the Polk County Campus or transfer to the Spindale Campus or to another college of their choice. This is a new emphasis for the Polk County Campus and will provide new options for recent graduates and high school seniors. Completing the freshman year at the Polk County Campus is a new opportunity that should not be overlooked with rising gasoline prices and the educational costs of attending college away from home.

The Polk County Campus hours are Monday through Thursday, 8:00 a.m.-9:30 p.m., Friday from 8:00 a.m. to 4:00 p.m. Additional information concerning this campus may be obtained by visiting the center or by calling 859-5868.

**Polk County Campus
Isothermal Community College
P. O. Box 520
Tryon, NC 28782**

Two Freshman college transfer programs are outlined below.

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
MAT (Select one)					
		MAT 0101 Finite Mathematics I or MAT 0120 Intermediate Algebra	4 5	0 0	4 5
GEL	0101	Geology	3	3	4
or					
SOC	0160	Introduction to Sociology	3	0	3
PED	0101	Concepts in Physical Education	1	2	2
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
HIS	0102	Western Civilization	3	0	3
MAT (Select one)					
		MAT 0102 Finite Mathematics II or MAT 0121 College Algebra & Trigonometry I	4 5	0 0	4 5
GEL	0102	Geology	3	3	4
or					
SOC	0161	Social Problems	3	0	3
PED (Select one from Electives)					
		Elective	3	0	3
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
HIS	0103	Western Civilization	3	0	3
MAT	0122	College Algebra & Trigonometry II	5	0	5
GEL	0103	Geology	3	3	4
SOC	0162	Sociology of the Family	3	0	3
		Elective	3	0	3
POSSIBLE ELECTIVES					
BIO	0160	Human Ecology	3	0	3
BUS	0101	Begin Typewriting	3	2	3
BUS	0210	Principles of Accounting	3	2	3
BUS	0211	Principles of Accounting	3	2	3
BUS	0212	Principles of Accounting	3	2	3
BUS	0214	Business Management	3	0	3
ECO	0260	Consumer Economics	3	2	3
ENG	0160	Public Speaking	3	0	3
HUM	0160	Visions of the Future	3	0	3
MUS	0161	Music Appreciation	3	0	3
PED	0105	Tumbling	0	3	1
PED	0108	Jogging	0	3	1
PED	0111	Tennis	0	3	1
PED	0102	Folk/Sq. Dancing	0	3	1

PED	0122	Modern Dance	0	3	1
PED	0124	Clogging	0	3	1
PED	0130	Swimming	0	3	1
PED	0140	Backpacking	0	3	1
PED	0148	White Water Canoeing	0	3	1
PHI	0260	Introduction to Philosophy	3	0	3

PRE-BUSINESS ADMINISTRATION C-004

Course Title		Class Hours	Lab Hours	Credit Hours	
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
MAT	0120	Intermediate Algebra or MAT 0101 Finite Mathematics I	5	0	5
			4	0	4
HIS	0101	Western Civilization	3	0	3
GEL	0101	Geology	3	3	4
or					
SOC	0160	Introduction to Sociology	3	0	3
PED	0101	Concepts in Physical Education	1	2	2
			Total	15/16	
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0121	College Algebra & Trigonometry I or MAT 0102 Finite Mathematics II	5	0	5
			4	0	4
HIS	0102	Western Civilization	3	0	3
GEL	0102	Geology	3	3	4
or					
SOC	0161	Social Problems	3	0	3
PED		Selection	0	3	1
		Elective	3	0	3
			Total	17/10	
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
HIS	0103	Western Civilization	3	0	3
MAT	0122	College Algebra & Trigonometry II	5	0	5
GEL	0103	Geology	3	3	4
BUS	0214	Business Management	3	0	3
PED		Selection	0	3	1
		Elective	3	0	3
			Total	16	
POSSIBLE ELECTIVES					
BIO	0160	Human Ecology	3	0	3
BUS	0101	Begin Typewriting	3	2	3
BUS	0210	Principles of Accounting	3	2	3
BUS	0211	Principles of Accounting	3	2	3
BUS	0212	Principles of Accounting	3	2	3
BUS	0214	Business Management	3	0	3
ECO	0260	Consumer Economics	3	2	3
ENG	0160	Public Speaking	3	0	3
HUM	0160	Visions of the Future	3	0	3
MUS	0161	Music Appreciation	3	0	3
PED	0105	Tumbling	0	3	1

PED	0108	Jogging	0	3	1
PED	0111	Tennis	0	3	1
PED	0102	Folk/Sq. Dancing	0	3	1
PED	0122	Modern Dance	0	3	1
PED	0124	Clogging	0	3	1
PED	0130	Swimming	0	3	1
PED	0140	Backpacking	0	3	1
PED	0148	White Water Canoeing	0	3	1
PHI	0260	Introduction to Philosophy	3	0	3
SOC	0162	Soc. of the Family	3	0	3

As many as 46 credit hours may be taken at the Polk County Campus when transferring to the Spindale Campus of Isothermal Community College.

In addition to conventional college parallel and occupational programs offered, the Polk County Campus provides the following educational opportunities:

Continuing Education

The Continuing Education Division is designed to provide educational non-credit opportunities for adults who desire to learn occupational skills as well as to upgrade their capabilities for success on the job; or to enrich their lives through arts and crafts. The Adult Basic Education and High School programs provide the basic skills of 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. Classes usually meet for a three-hour session twice a week. In order to accommodate a variety of student needs, a list of the Continuing Education classes include Industrial and Business management courses, accounting, bookkeeping, sewing, woodworking, guitar, dulcimer, first aid, adult growth and personal effectiveness, and many others.

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 | 2 units |
| (3) Social Studies | 2 units |
| (4) Science | 2 units |
| (5) Elective | 1 |
| (6) Passing Score | North Carolina Competency Test |

To enter the program a person must be eighteen years old or older, or have special permission from the Polk County Superintendent of Education or the Superintendent, Tryon School System as appropriate. Students may choose to study at the Learning Center at Tryon, or at an extension high school class. Each student in his program works independently of others, arranges his/her program works independently of others, arranges his/her own study schedule, and proceeds at his/her 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 County is presented below:

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 Study Skills.

SCIENCE—General Science, Astronomy, Biology, Chemistry, Anatomy and Physiology, Body Structure and Function, Basic Patient Care.

SOCIAL STUDIES—U. S. History, The Constitution, How a Bill Becomes a Law, Geography of the U.S., Civics, and Black Culture/History.

SOCIAL INTEREST—Basic Automobile, and Parenthood.

Independent Study Center:

Students may also earn college credit by enrolling in courses offered in the Independent Study Center. These courses parallel the material taught in the regular classroom and are monitored by an instructor. This program offers the student the advantage of being able to work at any time during the quarter and of setting his/her own pace for completing the course of study. The student may arrange his/her own study time and avoid the possible conflict of classroom versus job or home responsibilities. The student is required to pay appropriate fees and to take a supervised examination.

NOTES



CURRICULUM PROGRAMS

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



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 Individualized Instruction Center.

General Education

G-020 Associate of General Education

College Transfer

C-003 Pre-Art

C-004 Pre-Business Administration

C-026 Pre-Business Education

C-040 Pre-Computer Science

- 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-015 Pre-Music
- C-018 Pre-Science
- C-019 Pre-Social Work
- C-035 Pre-Teaching—Early Childhood
- C-020 Pre-Teaching—Elementary
- C-028 Pre-Teaching—Secondary
- C-024 Undecided

Technical

- T-109 Associate Degree for Vocational Instructors
- T-112 Banking and Finance
- T-018 Business Administration
- T-129 Criminal Justice
- T-022 Data Processing
- T-043 Drafting and Design Technology
- T-045 Electronics Engineering Technology
- T-033 General Office Technology
- T-049 Industrial Supervision and Management
- T-128 Insurance
- T-020 Marketing and Retailing
- T-051 Mechanical Engineering Technology
- T-127 Real Estate
- T-094 Recreation Associate
- T-030 Secretarial—Executive
- T-088 Teacher Associate
- T-034 Traffic and Transportation

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-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
Computer Science	CPS 0101	3
Physical Education	PED 0101	2
Humanities	See the humanities section of the course descriptions for the list of courses that can be used to meet this requirement (page 177).	3
Electives	May be chosen from among any first digit "0" courses.	44 or 45

COLLEGE TRANSFER PROGRAMS

Objectives

To provide opportunities for students to complete the general educational requirements leading to an Associate of Arts Degree (A.A.), an Associate of Fine Arts Degree (A.F.A.), or to an Associate of Science Degree (A.S.). Courses in these programs 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 the A.A., A.F.A., or A.S. degree must earn 96 quarter hours of credit with an overall grade point average of 2.0 or better.

The number of hours of required courses and elective courses vary with each of these degrees and are outlined on the following pages. A student's choice of electives should be decided through consultation with his/her advisor in a patterned way toward the student's future major area of concentration.

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
Computer Science	CPS 0101	3

Natural Science	One Lab Science (3 courses) Biology 0101, 0102, 0103 or Chemistry 0101, 0102, 0103 or Physics 0201, 0202, 0203 or Geology 0101, 0102, 0103	12
Physical Education	PED 0101 and two physical education activity courses from the following: PED 0102-0160, 0201-0244	4
Humanities	See the humanities section of the course descriptions for the list of courses that can be used to meet this requirement (page 177).	6
Social Science	May be taken from among any Psychology, Religion, Philosophy, Sociology, Anthropology, Econom- ics, History, Geography, or Political Science courses	3
Electives	May be chosen from among any first digit "0" courses	33

*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

4-6 additional hours math and/or science

Additional science hours can be substituted for MAT 0132 in Pre-Medical.

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

MAT 0131, 0132, 0133, 0231 and

PHY 0220, 0221, 0222 and

CHM 0101, 0102, 0103 -or-

BIO 0101, 0102, 0103

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

CHM 0101, 0102, 0103

PHY 0220, 0221, 0222

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.

ASSOCIATE IN FINE ARTS (AFA) DEGREE

The Fine Arts program as outlined below will fulfill the requirements for the Associate of Fine Arts Degree (AFA). It requires prescribed amounts of general education courses as well as courses in the desired professional program. At this time the professional areas in which the A.F.A. degree will be awarded are Art and Music.

GRADUATION COURSE REQUIREMENTS

Associate of Fine Arts (AFA)

Subject	Course	Credit Hours
Communications	ENG 0101, 0102, 0103	9
Humanities	Literature—ENG 0203—required, See the humanities section of the course descriptions for the list of courses that can be used to meet this requirement (page 00)—one course from four different areas, not to include professional program area	12
Sciences and/or Mathematics		8
Computer Science	CPS 0101	3

Social Sciences	Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology	9
Physical Education		4
Professional Program Courses (Art or Music)		37
Electives	(no more than 3 quarter hours from Cooperative Education)	14
	TOTAL	<hr/> 96

The following pre-professional programs are only suggested outlines for the student and advisor to consider. The actual degree requirements are stated above.



PRE-ART C-003

		Course Title	Class Hours	Studio or Lab Hrs.	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition	3	0	3
PED	0101	Concepts in Physical Education Science or Math Requirement	1	2	2
			—	—	4
*ART	0101	Fundamentals of Two-Dimensional Design	2	4	4
ART	0104	Ancient through Medieval Art History	3	0	3
			9	6	16
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
PED		Selection Science or Math Requirement Humanities Requirement	0	3	1
			—	—	4
ART	0102	Fundamentals of Three-Dimensional Design	3	0	3
ART	0105	Renaissance Art History	2	4	4
			3	0	3
			11	7	18
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
PED		Selection Humanities Requirement Social Science Requirement	0	3	1
			3	0	3
			3	0	3
ART	0103	Drawing and Composition I	2	4	4
ART	0106	History of Modern Art	3	0	3
			14	7	17
FOURTH QUARTER					
ART	0201	Drawing and Composition II	2	4	4
**ART	0204	Introduction to Sculpture Humanities Requirement Social Science Requirement	1	4	3
			3	0	3
			3	0	3
CP5	0101	Computer Concepts	3	0	3
			12	8	16
FIFTH QUARTER					
ART	0202	Painting I	1	4	3
**ART	0205	Constructive Design—Clay Social Science Requirement Electives	1	4	3
			3	0	3
			6	0	6
			11	8	15
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
ART	0203	Printmaking	1	4	3
**ART	0206	Life Drawing Electives	1	4	3
			5	0	5
			10	8	14

*The Art courses in this program outline are required for the AFA degree.
 **Any two of ART 0204, 0205, 0206 are required.

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	<u>0</u>	<u>3</u>	<u>1</u>
			13	6	15
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
		Humanities Requirement	<u>3</u>	<u>0</u>	<u>3</u>
			15	6	17
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
BUS	0101	Beginning Typewriting*	2	3	3
BUS	0210	Principles of Accounting	3	2	4
CPS	0101	Computer Concepts	3	0	3
ECO	0201	Principles of Economics	<u>3</u>	<u>2</u>	<u>3</u>
			14	7	16
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
BUS	0211	Principles of Accounting	3	2	4
ECO	0202	Principles of Economics	3	2	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			15	4	16
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
BUS	0212	Principles of Accounting	3	2	4
ECO	0203	Principles of Economics	3	2	3
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			15	4	16

*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			
BIO	0102	Principles of Biology	3	3	4
HIS	0102	Western Civilization	3	0	3
PED		Selection	0	3	1
			<u>13</u>	<u>6</u>	<u>15</u>
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
CPS	0101	Computer Concepts	3	0	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>15</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	4
ECO	0201	Principles of Economics	3	2	3
			<u>12</u>	<u>6</u>	<u>14</u>
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
BUS	0105	Shorthand	3	2	4
BUS	0211	Principles of Accounting	3	2	4
ECO	0202	Principles of Economics	3	2	3
PSY	0260	General Psychology	3	0	3
			<u>15</u>	<u>6</u>	<u>17</u>
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
BUS	0106	Shorthand	3	2	4
BUS	0212	Principles of Accounting	3	2	4
ECO	0203	Principles of Economics	3	2	3
PED	0101	Concepts in Physical Education	1	2	2
			<u>13</u>	<u>8</u>	<u>16</u>

*May demonstrate competency

**PRE-COMPUTER SCIENCE C-040
(DAY)**

			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
EDP	0160	Microcomputer Operations	2	2	2
MAT	0121	College Algebra and Trigonometry I	5	0	5
or					
MAT	0131	Calculus & Analytic Geo. I			
HIS	0101	Western Civilization	3	0	3
CPS	0101	Computer Concepts	3	0	3
			<u>17</u>	<u>2</u>	<u>17</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
MAT	0122	College Algebra and Trigonometry II	5	0	5
or					
MAT	0132	Calculus & Analytic Geo. II			
HIS	0102	Western Civilization	3	0	3
CPS	0102	Introduction to Computer Programming	3	2	4
		Humanities Elective	3	0	3
			<u>17</u>	<u>2</u>	<u>18</u>
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
MAT	0131	Calculus and Analytic Geometry I	5	0	5
or					
MAT	0133	Calculus and Analytic Geometry III			
CPS	0103	Advanced Programming Concepts	3	2	3
HIS	0103	Western Civilization	3	0	3
PED	0101	Physical Education Concepts	1	2	2
			<u>15</u>	<u>4</u>	<u>16</u>
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
MAT	0132	Calculus/Analytic Geometry II	5	0	5
or					
MAT	0231	Calculus & Analytic Geo. IV			
CHM	0101				
or					
PHY	0201		3	3	4
		Humanities Elective	3	0	3
		PED Elective	0	3	1
CPS	0201	Introduction to Data Structures	3	2	3
			<u>17</u>	<u>6</u>	<u>19</u>

FIFTH QUARTER

ENG	0202	English Literature II	3	0	3
MAT	0133	Calculus/Analytic Geometry III	3/5	2/0	3/5
	or	CPS Elective			
CHM	0102	or PSY 0202	3	3	4
		Social Science Elective	3	0	3
		PED Elective	<u>0</u>	<u>3</u>	<u>1</u>
			12	6	14

SIXTH QUARTER

ENG	0203	American Literature	3	0	3
MAT	0231	Calculus/Analytic Geometry IV	5	0	5
	or				
MAT	0140	Introductory Statistics	3	2	3
		CPS Elective	<u>3</u>	<u>3</u>	<u>4</u>
CHM	0103	or PHY 0203	14	5	15



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
ENG	0101	Freshman Composition I	3	0	3
HIS	0101	Western Civilization	3	0	3
MAT	0131	Calculus & Analytic Geometry I	5	0	5
			<u>14</u>	<u>3</u>	<u>15</u>
SECOND QUARTER					
CHM	0102	General Chemistry	3	3	4
ENG	0102	Freshman Composition II	3	0	3
HIS	0102	Western Civilization	3	0	3
MAT	0132	Calculus & Analytic Geometry II	5	0	5
			<u>14</u>	<u>3</u>	<u>15</u>
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	0133	Calculus & Analytic Geometry III	5	0	5
PED	0101	Concepts in Physical Education	1	2	2
			<u>12</u>	<u>5</u>	<u>17</u>
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
MAT	0231	Calculus & Analytic Geometry IV	5	0	5
PED		Selection	0	3	1
PHY	0220	Analytical Physics I	4	3	5
		Humanities Requirement	<u>3</u>	<u>0</u>	<u>3</u>
			15	6	17
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
CPS	0101	Computer Concepts	3	0	3
PED		Selection	0	3	1
PHY	0221	Analytical Physics II	4	3	5
		Humanities Requirement	<u>3</u>	<u>0</u>	<u>3</u>
			13	6	15
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
MAT	0140	Introductory Statistics	5	0	5
PHY	0222	Analytical Physics III	4	3	5
		Social Science Requirement	<u>3</u>	<u>0</u>	<u>3</u>
			15	3	16

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
			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
			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			
PED	0101	Concepts in P.E.	1	2	2
CHM	0103	General Chemistry	3	3	4
HIS	0103	Western Civilization	3	0	3
			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	0220	Analytical Physics I	4	3	5
PED		P.E. Elective	0	3	1
		Social Science Elective	3	0	3
			15	6	17
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
MAT	0133	Calculus & Anal. Geo. III	5	0	5
CPS	0101	Computer Concepts	3	0	3
PHY	0221	Analytical Physics II	4	3	5
PED		P.E. Elective	0	3	1
			15	6	17

SIXTH QUARTER

ENG	0203	American Literature	3	0	3
MAT	0231	Calculus & Anal. Geo, IV	5	0	5
or					
MAT	0140	Introductory Statistics			
PHY	0222	Analytical Physics III	<u>4</u>	<u>3</u>	<u>5</u>
			12	3	13



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
			<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
Natural Science			3	3	4
MAT	0102	Finite Mathematics II	4	0	4
		or			
MAT	0122	College Algebra & Trigonometry			
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
Natural Science			3	3	4
		Humanities Requirement	3	0	3
PED		Selection	0	3	1
		Elective	3	0	3
			<u>15</u>	<u>6</u>	<u>17</u>
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
CPS	0101	Computer Concepts	3	0	3
			<u>15</u>	<u>0</u>	<u>15</u>
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
			<u>18</u>	<u>0</u>	<u>18</u>
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
			<u>15</u>	<u>0</u>	<u>15</u>

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	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
		Natural Science	3	3	4
MAT	0102	Finite Mathematics II	4	0	4
		or			
MAT	0122	College Algebra & Trigonometry			
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
		Natural Science	3	3	4
		Social Science Requirement	3	0	3
PED		Selection	0	3	1
CPS	0101	Computer Concepts	3	0	3
			<u>15</u>	<u>5</u>	<u>17</u>
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
		Humanities Requirement	3	0	3
		Electives	9	0	9
			<u>15</u>	<u>0</u>	<u>15</u>
FIFTH QUARTER					
ENG	0202	English Literature II	3	0	3
		Humanities Requirement	3	0	3
		Electives	12	0	12
			<u>18</u>	<u>0</u>	<u>18</u>
SIXTH QUARTER					
ENG	0203	American Literature	3	0	3
		Electives	12	0	12
			<u>15</u>	<u>0</u>	<u>15</u>

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
		<u>15</u>	<u>5</u>	<u>17</u>
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
		<u>14</u>	<u>6</u>	<u>16</u>
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
		<u>15</u>	<u>3</u>	<u>16</u>
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
		<u>14</u>	<u>6</u>	<u>16</u>
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
		<u>14</u>	<u>6</u>	<u>16</u>
SIXTH QUARTER				
ENG 0203	American Literature	3	0	3
Natural Science		3	3	4
	Computer Science Course	3	0	3
	Humanities Requirement	3	0	3
PED	Selection	0	3	1
		<u>12</u>	<u>6</u>	<u>14</u>

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

PRE-MUSIC C-015

		Course Title	Class Hours	Studio Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
PED	0101	Concepts in Physical Education	1	2	2
		Science or Math Requirement	-	-	4
MUS	0101	Introduction to Music History	3	0	3
MUS	0104	Musicianship I	3	0	3
MUS	0110	Applied Music	1	2	1
	or				
		0120, 0130, 0140, 0150			
MUS	0160	Chorus	0	3	1
MUS	0107	Piano Skills For Music Majors (Required of Non-Piano Majors)	1	2	1
			<u>12</u>	<u>9</u>	<u>18</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
PED		Selection	0	3	1
		Science or Math Requirement	-	-	4
MUS	0102	Medieval & Renaissance History	3	0	3
MUS	0105	Musicianship II	3	0	3
MUS	0111	Applied Music	1	2	1
	or				
		0121, 0131, 0141, 0151			
MUS	0160	Chorus	0	3	1
			<u>10</u>	<u>8</u>	<u>16</u>
THIRD QUARTER					
ENG	0103	Freshman Composition III	3	0	3
PED		Selection	0	3	1
		Humanities Requirement	3	0	3
		Social Science Requirement	3	0	3
MUS	0103	Baroque History	3	0	3
MUS	0106	Musicianship III (Basic Harmony)	3	0	3
MUS	0112	Applied Music	1	2	1
	or				
		0122, 0132, 0142, 0152			
MUS	0160	Chorus	0	3	1
			<u>16</u>	<u>8</u>	<u>18</u>
FOURTH QUARTER					
MUS	0201	Eighteenth Century History	3	0	3
MUS	0204	Musicianship IV	3	0	3
MUS	0210	Applied Music	1	2	1
	or				
		0220, 0230, 0240, 0250			
MUS	0160	Chorus	0	3	1
		Humanities Requirement	3	0	3
		Social Science Requirement	3	0	3
CPS	0101	Computer Concepts	3	0	3
			<u>16</u>	<u>5</u>	<u>17</u>

FIFTH QUARTER

MUS	0202	Nineteenth Century History	3	0	3
MUS	0205	Musicianship V (Form and Analysis)	3	0	3
MUS	0211	Applied Music	1	2	1
	or				
		0221, 0231, 0241, 0251			
MUS	0160	Chorus	0	3	1
		Social Science Requirement	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			13	5	14

SIXTH QUARTER

MUS	0203	Twentieth Century History	3	0	3
MUS	0206	Musicianship VI (Twentieth Century Styles and Techniques)	3	0	3
MUS	0212	Applied Music	1	2	1
	or				
		0222, 0232, 0242, 0252			
MUS	0160	Chorus	0	3	1
ENG	0203	American Literature	3	0	3
		Humanities Requirement	<u>3</u>	<u>0</u>	<u>3</u>
			13	5	14



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
CPS	0101	Computer Concepts	3	0	3
Electives			3	0	3
			<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, and Public Speaking.

PRE-TEACHING (Elementary) C-020
PRE-TEACHING (Secondary) C-028
PRE-TEACHING (Early Childhood) C-035

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	<u>5</u>	<u>0</u>	<u>5</u>
			<u>14</u>	<u>6</u>	<u>16</u>
FOURTH QUARTER					
ENG	0201	English Literature I	3	0	3
GEG	0160	Physical Geography	3	2	4
		A Physical Science (Chemistry, Physics Geology or Physical Science)	3	3	4
		Humanities Requirement	3	0	3
CPS	0101	Computer Concepts	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	<u>3</u>	<u>0</u>	<u>3</u>
			<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	<u>6</u>	<u>0</u>	<u>6</u>
			<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.

The Technical Programs offered are:

**Associate Degree for
Vocational Instructors**

Banking and Finance

Business Administration

Criminal Justice

Data Processing

Drafting and Design

Technology

Electronics Engineering

Technology

General Office Technology

**Industrial Supervision
and Management**

Insurance

Marketing and Retailing

Mechanical Engineering

Technology

Real Estate

Recreation Associate

Secretarial—Executive

Teacher Associate

Traffic and Transportation

TECHNICAL CERTIFICATE PROGRAMS

Upon the recommendation of the Division Chairman to the Vice President, a Certificate of Achievement may be awarded to a student who meets the prescribed requirements in Business Administration, Industrial Supervision and Management, Secretarial Science, Data Entry, and Computer Operations, as shown in the following outlines. *The student must apply to the Registrar's Office for this certificate.*

BANKING AND FINANCE (Day) T112

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
BUS	0101	Beginning Typewriting	2	3	3
BUS	0239	Business Mathematics	3	2	4
BUS	0210	Principles of Accounting	3	2	4
AIB	0110	Teller Operations	4	0	4
		Elective	3	0	3
			<u>15</u>	<u>7</u>	<u>18</u>
SECOND QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0107	Business Machines	2	3	4
AIB	0123	Financial Business Enterprises	4	0	4
BUS	0211	Principles of Accounting	3	2	4
PSY	0201	Industrial Psychology	3	0	3
			<u>15</u>	<u>3</u>	<u>18</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
EDP	0101	Computer Concepts	3	0	3
AIB	0203	Bank Investments	4	0	4
AIB	0205	Bank Management	4	0	4
		Elective	3	0	3
			<u>17</u>	<u>0</u>	<u>17</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0225	Business Law	3	0	3
ECO	0201	Economic Principles	3	2	3
AIB	0209	Installment Credit	4	0	4
AIB	0210	Money and Banking	4	0	4
			<u>17</u>	<u>2</u>	<u>17</u>
FIFTH QUARTER					
BUS	0217	Taxes	3	2	4
BUS	0226	Business Law	3	0	3
ECO	0202	Economic Principles	3	2	3
AIB	0219	Credit Administration	4	0	4
AIB	0227	Management of Commercial Bank Funds	4	0	4
			<u>17</u>	<u>4</u>	<u>18</u>
SIXTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
EDP	0210	BASIC Programming I	3	2	4
AIB	0233	Analysis of Financial Statements	4	0	4
AIB	0235	Loan and Discount	4	0	4
		Elective	3	0	3
			<u>17</u>	<u>0</u>	<u>18</u>

BANKING AND FINANCE (Night) T112

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
BUS	0101	Beginning Typewriting	2	3	3
BUS	0239	Business Mathematics	3	2	4
AIB	0110	Teller Operations	4	0	4
BUS	0210	Principles of Accounting	3	2	4
			12	7	15
SECOND QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0107	Business Machines	2	3	4
BUS	0211	Principles of Accounting	3	2	4
AIB	0123	Financial Business Enterprises	4	0	4
			12	5	15
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
EDP	0101	Computer Concepts	3	0	3
AIB	0203	Bank Investments	4	0	4
AIB	0205	Bank Management	4	0	4
			14	0	14
FOURTH QUARTER					
PSY	0201	Industrial Psychology	3	0	3
		Electives	6	0	6
			9	0	9
FIFTH QUARTER					
BUS	0225	Business Law	3	0	3
ECO	0201	Economic Principles	3	2	3
AIB	0209	Installment Credit	4	0	4
AIB	0210	Money and Banking	4	0	4
			14	2	14
SIXTH QUARTER					
BUS	0217	Taxes	3	2	4
ECO	0202	Economic Principles	3	2	3
AIB	0219	Credit Administration	4	0	4
AIB	0227	Management of Commercial Bank Funds	4	0	4
			14	4	15
SEVENTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
AIB	0233	Analysis of Financial Statements	4	0	4
AIB	0235	Loan and Discount	4	0	4
		Elective	3	0	3
			14	0	14
EIGHTH QUARTER					
ENG	0160	Public Speaking	3	0	3
EDP	0210	BASIC Programming I	3	2	4
BUS	0226	Business Law	3	0	3
			9	2	10

**BUSINESS ADMINISTRATION T018
(DAY)**

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	Beginning Typewriting	2	3	3
BUS	0210	Principles of Accounting	3	2	4
BUS	0239	Business Math	<u>3</u>	<u>2</u>	<u>4</u>
			14	9	17
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0107	Business Machines	2	3	4
BUS	0112	Business Finance	3	0	3
BUS	0211	Principles of Accounting	3	2	4
PSY	0201	Industrial Psychology	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			17	5	20
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0212	Principles of Accounting	3	2	4
BUS	0214	Business Management	3	0	3
EDP	0101	Computer Concepts	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	2	16
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0220	Marketing	3	2	4
BUS	0225	Business Law	3	0	3
ECO	0201	Principles of Economics	3	2	3
		Elective	3	0	3
		EDP Elective	<u>3</u>	<u>0</u>	<u>3</u>
			10	4	19
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	<u>3</u>	<u>2</u>	<u>3</u>
			15	6	16
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
EDP	0210	BASIC Programming I or EDP 0160	3	2	4
		Elective	<u>2</u>	<u>0</u>	<u>2</u>
			14	4	15
TOTAL CREDIT HOURS					103

**BUSINESS ADMINISTRATION T018
(NIGHT)**

		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	Beginning Typewriting	2	3	3
BUS	0210	Principles of Accounting	<u>3</u>	<u>2</u>	<u>4</u>
			11	7	13
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0239	Business Math	3	2	4
BUS	0211	Principles of Accounting Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	4	14
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0212	Principles of Accounting	3	2	4
BUS	0214	Business Management	3	0	3
EDP	0101	Computer Concepts	<u>3</u>	<u>0</u>	<u>3</u>
			12	2	13
FOURTH QUARTER					
BUS	0107	Business Machines	2	3	4
BUS	0220	Marketing	3	2	4
BUS	0221	Advertising Elective	<u>3</u>	<u>0</u>	<u>3</u>
			11	7	14
FIFTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0225	Business Law	3	0	3
ECO	0201	Principles of Economics EDP Elective	<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
EDP	0210	BASIC Programming I or EDP 0160	<u>3</u>	<u>2</u>	<u>4</u>
			12	4	13
EIGHTH QUARTER					
BUS	0112	Business Finance	3	0	3
PSY	0201	Industrial Psychology Electives	<u>3</u>	<u>0</u>	<u>3</u>
			5	0	5
			11	0	11
TOTAL CREDIT HOURS					103

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)
BUS 0239 Business Math	4 hrs.
BUS 0210 Principles of Accounting	4 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 32

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. Students may enter this program any quarter.

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
DSM 0101 Basic Math II	3	0	3
ENG 0101 Freshman Composition I	3	0	3
SOC 0160 Introduction to Sociology	3	0	3
CPS 0101 Computer Concepts	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
			<u>15</u>	<u>0</u>	<u>15</u>

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
			<u>15</u>	<u>0</u>	<u>15</u>

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
			<u>15</u>	<u>0</u>	<u>15</u>

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
			<u>15</u>	<u>0</u>	<u>15</u>

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	3	0	3
			<u>15</u>	<u>2</u>	<u>16</u>

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	3	0	3
			<u>15</u>	<u>0</u>	<u>15</u>

*May demonstrate competency

CREDIT MAY BE GIVEN FOR PREVIOUS LAW ENFORCEMENT TRAINING.

DATA PROCESSING CURRICULUM T022 (DAY)

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
EDP	0101	Computer Concepts	3	0	3
EDP	0160	Microcomputer Operations	2	2	2
EDP	0210	BASIC Programming	3	2	4
BUS	0100	Introduction to Business	3	2	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0239	Business Math	3	2	4
			<u>16</u>	<u>11</u>	<u>19</u>
SECOND QUARTER					
EDP	0103	Data Entry	3	2	3
EDP	0211	Advanced BASIC Programming	3	2	4
BUS	0210	Principles of Accounting	3	2	4
ENG	0101	Freshman Composition I	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	6	17
THIRD QUARTER					
EDP	0200	Computer Operations	3	2	4
EDP	0220	RPG II Programming	3	2	4
BUS	0211	Principles of Accounting	3	2	4
ENG	0102	Freshman Composition II	3	0	3
ENG	0160	Public Speaking	<u>3</u>	<u>0</u>	<u>3</u>
			15	6	18
FOURTH QUARTER					
EDP	0201	Advanced Computer Operations	3	2	4
EDP	0221	Advanced RPG II Programming	3	2	4
EDP	0240	Systems Analysis	3	2	4
BUS	0212	Principles of Accounting	3	2	4
ECO	0260	Consumer Economics	<u>3</u>	<u>2</u>	<u>3</u>
			15	10	19
FIFTH QUARTER					
EDP	0230	COBOL Programming	3	2	4
EDP	0242	Computerized Accounting	4	4	4
EDP	0250	Data Processing Projects	3	2	4
PSY	0201	Industrial Psychology	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			16	8	18
SIXTH QUARTER					
EDP	0231	Advanced COBOL Programming	3	2	4
EDP	0252	Database Processing	3	2	4
ENG	0104	Business Communications	3	0	3
BUS	0200, BUS 0215, or EDP	Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	4	17
TOTAL CREDIT HOURS					108

**DATA PROCESSING CURRICULUM T022
(EVENING)**

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
EDP 0101	Computer Concepts	3	0	3
EDP 0160	Microcomputer Operations	2	2	2
EDP 0210	BASIC Programming	3	2	4
BUS 0100	Introduction to Business	3	2	3
BUS 0101	Beginning Typewriting	2	3	3
		13	9	15
SECOND QUARTER				
EDP 0103	Data Entry	3	2	3
EDP 0211	Advanced BASIC Programming	3	2	4
BUS 0210	Principles of Accounting	3	2	4
ENG 0101	Freshman Composition I	3	0	3
		12	6	14
THIRD QUARTER				
EDP 0200	Computer Operations	3	2	4
EDP 0220	RPG II Programming	3	2	4
BUS 0211	Principles of Accounting	3	2	4
ENG 0102	Freshman Composition II	3	0	3
		12	6	15
FOURTH QUARTER				
BUS 0239	Business Math	3	2	4
BUS 0212	Principles of Accounting	3	2	4
BUS 0200, BUS 0215 or EDP Elective		3	0	3
ENG 0104	Business Communications	3	0	3
		12	4	14
FIFTH QUARTER				
EDP 0201	Advanced Computer Operations	3	2	4
EDP 0221	Advanced RPG II Programming	3	2	4
EDP 0240	Systems Analysis	3	2	4
ECO 0260	Consumer Economics	3	2	3
		12	8	15
SIXTH QUARTER				
EDP 0230	COBOL Programming	3	2	4
EDP 0242	Computerized Accounting	4	4	4
EDP 0250	Data Processing Projects	3	2	4
	Elective	3	0	3
		13	8	15
SEVENTH QUARTER				
EDP 0231	Advanced COBOL Programming	3	2	4
EDP 0252	Database Processing	3	2	4
	Elective	3	0	3
		9	4	11
EIGHTH QUARTER				
ENG 0160	Public Speaking	3	0	3
PSY 0201	Industrial Psychology	3	0	3
	Elective	3	0	3
		9	0	9
TOTAL CREDIT HOURS				108

COMPUTER OPERATIONS CERTIFICATE (DAY)

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
EDP	0101 Computer Concepts	3	0	3
EDP	0160 Microcomputer Operations	2	2	2
EDP	0210 BASIC Programming	3	2	4
BUS	0100 Introduction to Business	3	2	3
ENG	0101 Freshman Composition I	3	0	3
BUS	0101 Beginning Typewriting	2	3	3
		<u>16</u>	<u>9</u>	<u>18</u>
SECOND QUARTER				
EDP	0103 Data Entry	3	2	3
EDP	0200 Computer Operations	3	2	4
ENG	0102 Freshman Composition II	3	0	3
BUS	0239 Business Math	3	2	4
EDP	0220 or EDP 0230	3	2	4
		<u>15</u>	<u>8</u>	<u>18</u>
THIRD QUARTER				
EDP	0201 Advanced Computer Operations	3	2	4
EDP	0258 Data Entry/Computer Op Internship	2	8	4
BUS	0210 Principles of Accounting	3	2	4
ENG	0104 Business Communications	3	0	3
BUS	0200 Word Processing Applications	2	3	3
		<u>13</u>	<u>15</u>	<u>18</u>
TOTAL CREDIT HOURS				54

COMPUTER OPERATIONS CERTIFICATE (EVENING)

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
EDP	0101 Computer Concepts	3	0	3
EDP	0160 Microcomputer Operations	2	2	2
EDP	0210 BASIC Programming	3	2	4
BUS	0101 Beginning Typewriting	2	3	3
		<u>10</u>	<u>7</u>	<u>12</u>
SECOND QUARTER				
EDP	0103 Data Entry	3	2	3
BUS	0200 Computer Operations	3	2	4
ENG	0101 Freshman Composition I	3	0	3
EDP	0220 or EDP 0230	3	2	4
		<u>12</u>	<u>6</u>	<u>14</u>
THIRD QUARTER				
EDP	0201 Advanced Computer Operations	3	2	4
BUS	0200 Word Processing Applications	2	3	3
BUS	0100 Introduction to Business	3	2	3
ENG	0102 Freshman Composition II	3	0	3
		<u>11</u>	<u>7</u>	<u>13</u>
FOURTH QUARTER				
EDP	0258 Data Entry/Computer Op. Internship	2	8	4
BUS	0210 Principles of Accounting	3	2	4
ENG	0104 Business Communications	3	0	3
BUS	0239 Business Math	3	2	4
		<u>11</u>	<u>12</u>	<u>15</u>
TOTAL CREDIT HOURS				54

DATA ENTRY CERTIFICATE

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
EDP	0101	Computer Concepts	3	0	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0100	Introduction to Business	3	2	3
ENG	0101	Freshman Composition I	3	0	3
BUS	0239	Business Math	<u>3</u>	<u>2</u>	<u>4</u>
			14	7	16
SECOND QUARTER					
EDP	0103	Data Entry	3	2	3
EDP	0160	Microcomputer Operations	2	2	2
EDP	0200	Computer Operations	3	2	4
BUS	0102	Typewriting II	2	3	3
ENG	0102	Freshman Composition II	<u>3</u>	<u>0</u>	<u>3</u>
			13	9	15
THIRD QUARTER					
EDP	0250	Data Entry/Computer Op. Internship	2	8	4
BUS	0200	Word Processing Applications	2	3	3
ENG	0104	Business Communications	3	0	3
		EDP Elective	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			13	11	16
TOTAL CREDIT HOURS					47

DATA ENTRY CERTIFICATE (EVENING)

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
EDP	0101	Computer Concepts	3	0	3
ENG	0101	Freshman Composition I	3	0	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0100	Introduction to Business	<u>3</u>	<u>2</u>	<u>3</u>
			11	5	12
SECOND QUARTER					
EDP	0103	Data Entry	3	2	3
EDP	0160	Microcomputer Operations	2	2	2
BUS	0102	Typewriting II	2	3	3
BUS	0239	Business Math	<u>3</u>	<u>2</u>	<u>4</u>
			10	9	12
THIRD QUARTER					
BUS	0200	Word Processing Applications	2	3	3
EDP	0200	Computer Operations	3	2	4
ENG	0102	Freshman Composition II	3	0	3
		EDP Elective	<u>3</u>	<u>0</u>	<u>3</u>
			11	5	13
FOURTH QUARTER					
EDP	0250	Data Entry/Computer Op. Internship	2	8	4
ENG	0104	Business Communications	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			8	8	10
TOTAL CREDIT HOURS					47

DRAFTING AND DESIGN TECHNOLOGY T-043

The Mechanical Drafting and Design curriculum is designed to prepare mechanical draftsmen. Emphasis is placed upon ability to think and plan, as well as upon drafting procedures and techniques used by mechanical draftsmen.

Mechanical drafting and design technicians perform many aspects of drafting such as developing the drawing of a section, sub-assembly or major component. Investigating design factors and availability of material and equipment, production methods and facilities are frequent assignments. They assist in the design of units and control from specifications by utilizing drawings of existing units and reports on functional performance. They may draw components in industrial fields based on engineers' original design concepts or specific ideas. Also, they may be assigned as coordinators for the execution of related work or other design, production, tooling, material and planning groups. Technicians with experience in this classification may often supervise the preparation of working drawings. These technicians are employed in many types of manufacturing, fabrication, research development and service industries. Substantial numbers also are employed in communications; transportation; public utilities; consulting engineering firms; and federal, state, and local governments. Students may enter this program any quarter.

FIRST YEAR

Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER			
EGR 0101 Engineering Drawing I	0	6	3
MEC 0111 Industrial Safety	3	2	4
MAT 0120 Intermediate Algebra	5	0	5
MEC 0110 Machine Processes	3	3	4
	<u>11</u>	<u>11</u>	<u>16</u>
SECOND QUARTER			
EGR 0102 Engineering Drawing II	0	6	3
MAT 0121 College Algebra & Trigonometry	5	0	5
MEC 0118 Introduction to Metals	3	2	4
MEC 0112 Manufacturing Processes	3	3	4
	<u>11</u>	<u>11</u>	<u>16</u>
THIRD QUARTER			
EGR 0103 Engineering Drawing III	0	6	3
MEC 0119 Applied Metallurgy	3	2	4
DFT 0107 Surveying and Mapping	2	3	3
MAT 0122 College Algebra & Trigonometry	5	0	5
	<u>10</u>	<u>11</u>	<u>15</u>

FOURTH QUARTER

DFT	0203	Architectural Drafting	0	6	3
PSY	0260	General Psychology	3	0	3
DFT	0205	Design Drafting I	3	6	5
WLD	0135	Basic Gas Welding & Cutting	2	3	3
			<u>8</u>	<u>15</u>	<u>14</u>

Diploma may be obtained at the end of the first year.

DRAFTING AND DESIGN**SECOND YEAR**

		Course Title	Class Hours	Lab Hours	Credit Hours
FIFTH QUARTER					
ELC	0205	Applied Electricity	2	4	4
ENG	0101	Freshman Composition I	3	0	3
DFT	0206	Design Drafting II	3	6	5
CPS	0101	Computer Concepts	3	0	3
			<u>11</u>	<u>10</u>	<u>15</u>
SIXTH QUARTER					
ENG	0102	Freshman Composition II	3	0	3
DFT	0212	Jig and Fixture Design	3	3	4
MEC	0235	Hydraulics and Pneumatics	3	0	3
		Elective	3	0	3
		Social Science Elective	3	0	3
			<u>15</u>	<u>3</u>	<u>16</u>
SEVENTH QUARTER					
ENG	0103	Freshman Composition III	3	0	3
MEC	107	Applied Mechanics	5	0	5
DFT	0211	Mechanisms	3	3	4
		Humanities Elective	3	0	3
		Elective	3	0	3
			<u>17</u>	<u>3</u>	<u>18</u>
EIGHTH QUARTER					
ENG	0160	Public Speaking	3	0	3
MEC	205	Strength of Materials	5	0	5
MEC	0238	AHR Systems	3	0	3
DFT	0209	Industrial Systems Schematics	2	2	3
			<u>13</u>	<u>2</u>	<u>14</u>

**DRAFTING & DESIGN TECHNOLOGY T043
(EVENING)**

	Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
EGR	0101 Engineering Drawing I	0	6	3
MAT	0120 Intermediate Algebra	5	0	5
PSY	0260 General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
		8	6	11
SECOND QUARTER				
EGR	0102 Engineering Drawing II	0	6	3
MAT	0121 College Algebra & Trigonometry	5	0	5
MEC	0112 Manufacturing Processes	<u>3</u>	<u>3</u>	<u>4</u>
		8	9	12
THIRD QUARTER				
EGR	0103 Engineering Drawing III	0	6	3
MAT	0122 College Algebra & Trigonometry	5	0	5
MEC	0118 Introduction to Metals	<u>3</u>	<u>2</u>	<u>4</u>
		8	8	12
FOURTH QUARTER				
MEC	0119 Applied Metallurgy	3	2	4
DFT	0107 Surveying and Mapping	2	3	3
ENG	0160 Public Speaking	<u>3</u>	<u>0</u>	<u>3</u>
		8	5	10
FIFTH QUARTER				
MEC	0110 Machine Processes	3	3	4
DFT	0203 Architectural Drafting	0	6	3
ENG	0101 Freshman Composition I	<u>3</u>	<u>0</u>	<u>3</u>
		6	9	10
SIXTH QUARTER				
ENG	0102 Freshman Composition II	3	0	3
DFT	0205 Design Drafting I	<u>3</u>	<u>6</u>	<u>5</u>
		6	6	8
SEVENTH QUARTER				
ENG	0103 Freshman Composition III	3	0	3
MEC	0107 Applied Mechanics	<u>5</u>	<u>0</u>	<u>5</u>
		8	0	8
EIGHTH QUARTER				
MEC	0205 Strength of Materials	3	2	3
CPS	0101 Computer Concepts	<u>3</u>	<u>0</u>	<u>3</u>
		6	2	6
NINTH QUARTER				
DFT	0212 Jig and Fixture Design	3	3	4
	Elective (Humanities)	3	0	3
	Elective	<u>3</u>	<u>0</u>	<u>3</u>
		9	3	10

TENTH QUARTER

MEC	0235	Hydraulics and Pneumatics	3	0	3
		Elective	3	0	3
ELC	0205	Applied Electricity	<u>2</u>	<u>4</u>	<u>4</u>
			8	4	10

ELEVENTH QUARTER

MEC	0238	AHR Systems	3	0	3
DFT	0209	Industrial Systems Schematics	2	2	3
		Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
			8	2	9

ELECTRONICS ENGINEERING TECHNOLOGY T045

The program of study in Electronics Engineering Technology is designed to provide the student with a thorough background in the basic studies and sciences and to provide him with the essential specialized courses in the electronics area. Emphasis is upon the broad area of electronics endeavor. Modern laboratory equipment provides for a comprehensive treatment of advanced electronics instrumentation. Graduates are employed in manufacturing, production, testing, inspection, promotion, and sales of electronic equipment and systems.



There is a bright future for the Electronics Engineering Technology graduate in the building, installation, and maintenance of the electric devices that are now considered essential to so many phases of our industrial society.

ELECTRONICS ENGINEERING TECHNOLOGY T045

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ELC	0101	Electrical Fundamentals I	5	3	6
EGR	0101	Engineering Drawing	0	6	3
MAT	0120	Intermediate Algebra	5	0	5
ENG	0101	Freshman Composition I	<u>3</u>	<u>0</u>	<u>3</u>
			13	9	17
SECOND QUARTER					
ELC	0102	Electrical Fundamentals II	5	3	6
ELN	0101	Electronics I	3	3	4
MAT	0121	College Algebra & Trigonometry	5	0	5
ENG	0102	Freshman Composition II	<u>3</u>	<u>0</u>	<u>3</u>
			16	6	18
THIRD QUARTER					
ELN	0102	Electronics II	5	3	6
MAT	0122	College Algebra & Trigonometry	5	0	5
ENG	0103	Freshman Composition III	3	0	3
ELN	0201	Pulse & Switching Circuits	<u>3</u>	<u>3</u>	<u>4</u>
			16	6	18
FOURTH QUARTER					
ELN	0103	Electronics III	5	3	6
		Social Science	3	0	3
ENG	0160	Public Speaking	3	0	3
		Humanities Elective	3	0	3
ELN	0202	Digital Fundamentals	<u>5</u>	<u>3</u>	<u>6</u>
			19	6	21
FIFTH QUARTER					
ELN	0203	Integrated Circuit Theory	3	3	6
PHY	0201	General Physics I	3	3	4
EDP	0210	Basic Programming I	3	2	4
ELN	0204	Microprocessor Applications	<u>5</u>	<u>3</u>	<u>6</u>
			14	11	20
SIXTH QUARTER					
EDP	0211	Basic Programming II	3	2	4
PHY	0202	General Physics II	3	3	4
		Elective	3	0	3
ELN	0206	Electrical Machines (Rotating Devices)	<u>5</u>	<u>3</u>	<u>6</u>
			14	8	17
SEVENTH QUARTER					
ELN	0205	Electronics Systems Project	5	3	6
		Electives	<u>6</u>	<u>0</u>	<u>6</u>
			11	3	12

**EXECUTIVE SECRETARIAL SCIENCE T030
(DAY)**

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0100	Introduction to Business	3	2	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0104	Shorthand	3	2	4
BUS	0239	Business Math	3	2	4
			<u>14</u>	<u>9</u>	<u>17</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0102	Typewriting II	2	3	3
BUS	0105	Shorthand	3	2	4
BUS	0107	Business Machines	2	3	4
PSY	0101	Personality Development	3	2	3
			<u>13</u>	<u>10</u>	<u>17</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0103	Typewriting III	2	3	3
BUS	0106	Shorthand	3	2	4
BUS	0109	Terminology and Vocabulary	3	0	3
BUS	0190	Word Processing Concepts	3	0	3
			<u>14</u>	<u>5</u>	<u>16</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0202	Dictation and Transcription	3	2	4
BUS	0210	Principles of Accounting	3	2	4
BUS	0225	Business Law	3	0	3
BUS	0200	Word Processing Applications	2	3	3
			<u>15</u>	<u>7</u>	<u>17</u>
FIFTH QUARTER					
BUS	0203	Dictation & Transcription	3	2	4
BUS	0205	Machine Transcription	1	6	3
BUS	0201	Word Processing Files	2	3	3
PSY	0201	Industrial Psychology	3	0	3
		Elective	3	0	3
			<u>12</u>	<u>11</u>	<u>17</u>
SIXTH QUARTER					
BUS	0108	Filing	3	0	3
BUS	0213	Secretarial Procedures	3	2	4
		Electives	10	0	10
			<u>16</u>	<u>2</u>	<u>17</u>
TOTAL CREDIT HOURS					100

**GENERAL OFFICE TECHNOLOGY T033
(DAY)**

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0100	Introduction to Business	3	2	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0239	Business Math	3	2	4
		Elective	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 II	2	3	3
BUS	0107	Business Machines	2	3	4
PSY	0101	Personality Development	3	2	3
		Elective	3	0	3
			<u>13</u>	<u>8</u>	<u>16</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0103	Typewriting III	2	3	3
BUS	0109	Terminology and Vocabulary	3	0	3
BUS	0190	Word Processing Concepts	3	0	3
		Business Elective	3	0	3
		Elective	3	0	3
			<u>17</u>	<u>3</u>	<u>18</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0200	Word Processing Applications	2	3	3
BUS	0210	Principles of Accounting	3	2	4
BUS	0225	Business Law	3	0	3
		Elective	3	0	3
			<u>14</u>	<u>5</u>	<u>16</u>
FIFTH QUARTER					
BUS	0205	Machine Transcription	1	6	3
BUS	0208	Stenoscrypt	3	2	4
PSY	0201	Industrial Psychology	3	0	3
BUS	0201	Word Processing Files	2	3	3
		Elective	3	0	3
			<u>12</u>	<u>11</u>	<u>16</u>
SIXTH QUARTER					
BUS	0108	Filing	3	0	3
BUS	0213	Secretarial Procedures	3	2	4
		Electives	9	0	9
			<u>15</u>	<u>2</u>	<u>16</u>
TOTAL CREDIT HOURS					98

**GENERAL OFFICE TECHNOLOGY T033
(NIGHT)**

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	Beginning Typewriting	2	3	3
BUS	0239	Business Math	3	2	4
			<u>11</u>	<u>7</u>	<u>13</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0102	Typewriting II	2	3	3
		Elective	3	0	3
			<u>8</u>	<u>3</u>	<u>9</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0103	Typewriting III	2	3	3
BUS	0109	Terminology & Vocabulary	3	0	3
BUS	0190	Word Processing Concepts	3	0	3
			<u>11</u>	<u>3</u>	<u>12</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0107	Business Machines	2	3	4
PSY	0101	Personality Development	3	2	3
		Elective	3	0	3
			<u>11</u>	<u>5</u>	<u>13</u>
FIFTH QUARTER					
BUS	0200	Word Processing Applications	2	3	3
BUS	0210	Principles of Accounting	3	2	4
BUS	0225	Business Law	3	0	3
		Business Elective	3	0	3
			<u>11</u>	<u>5</u>	<u>13</u>
SIXTH QUARTER					
BUS	0205	Machine Transcription	1	6	3
BUS	0108	Filing	3	0	3
BUS	0208	Stenoscript	3	2	4
		Elective	3	0	3
			<u>10</u>	<u>8</u>	<u>13</u>
SEVENTH QUARTER					
BUS	0213	Secretarial Procedures	3	2	4
BUS	0201	Word Processing Files	2	3	3
		Electives	6	0	6
			<u>11</u>	<u>5</u>	<u>13</u>
EIGHTH QUARTER					
PSY	0201	Industrial Psychology	3	0	3
		Electives	6	0	6
			<u>9</u>	<u>0</u>	<u>9</u>
		TOTAL HOURS CREDIT			90

ONE YEAR SECRETARIAL CERTIFICATE 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	Beginning Typewriting	2	3	3
BUS	0104	Shorthand or three hour Business Elective	<u>3</u>	<u>0</u>	<u>4/3</u>
			11	5	12/13
SECOND QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0102	Typewriting II	2	3	3
BUS	0105	Shorthand or BUS 0200 Stenocript	3	2	4
BUS	0239	Business Math	3	2	4
PSY	0101	Personality Development	<u>3</u>	<u>2</u>	<u>3</u>
			14	9	17
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0103	Typewriting III	2	3	3
BUS	0109	Terminology & Vocabulary	3	0	3
BUS	0190	Word Processing Concepts Business or EDP Elective	<u>3</u>	<u>0</u>	<u>3</u>
			14	3	15
FOURTH QUARTER					
BUS	0107	Business Machines	2	3	4
BUS	0108	Filing	3	0	3
BUS	0200	Word Processing Applications Business or EDP Elective	<u>2</u>	<u>3</u>	<u>3</u>
			3	0	3
			10	6	13
TOTAL CREDIT HOURS					57/58

INDUSTRIAL SUPERVISION AND MANAGEMENT MANAGEMENT OPTION

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
ISC	0111 Industrial Safety	3	2	3
COE	0100 Cooperative Education Seminar	1	0	1
MGT	0190 Leadership Development	3	0	3
	Humanities Requirement	3	0	3
	Elective	3	0	3
		<u>13</u>	<u>2</u>	<u>13</u>
SECOND QUARTER				
ENG	0101 Freshman Composition I	3	0	3
ISC	0121 Industrial Engineering Appreciation	3	0	3
EDP	0101 Computer Concepts	3	0	3
	Elective	3	0	3
		<u>12</u>	<u>0</u>	<u>12</u>
THIRD QUARTER				
ENG	0102 Freshman Composition II	3	0	3
BUS	0216 Principles of Supervision	3	0	3
BUS	0239 Business Mathematics	3	2	4
	Elective	3	0	3
		<u>12</u>	<u>2</u>	<u>13</u>
FOURTH QUARTER				
PSY	0201 Industrial Psychology	3	0	3
ISC	0122 Basic Electricity & Electronics	3	0	3
MAT	0111 Technical Math	3	0	3
ENG	0104 Business Communications	3	0	3
		<u>12</u>	<u>0</u>	<u>12</u>
FIFTH QUARTER				
ECO	0204 Free Enterprise Economics	3	0	3
ISC	0221 Production Planning/Value Analysis	3	0	3
MGT	0191 Department Manager's Training Seminar			
	or			
MGT	0192 Supervisor's Training Seminar	3	0	3
MGT	0193 Accurate Perception and Communication	3	0	3
		<u>12</u>	<u>0</u>	<u>12</u>
SIXTH QUARTER				
ECO	0202 Economics Principles	3	2	3
ISC	0113 Quality Control	3	0	3
BUS	0224 Personnel Management	3	0	3
MGT	0194 Coaching in Supervision	3	0	3
		<u>12</u>	<u>2</u>	<u>12</u>
SEVENTH QUARTER				
EDP	0204 Computer Operations for Management	3	2	4
ECO	0261 Labor Economics and Labor Relations	3	0	3
BUS	0214 Business Management	3	0	3
MGT	0195 Team Building	3	0	3
		<u>12</u>	<u>2</u>	<u>13</u>
EIGHTH QUARTER				
MGT	0216 Motivational Dynamics	3	0	3
EDP	0270 Robotic Automation Concepts	3	0	3
MGT	0196 How to Deal More Effectively with Stress, Time Management and Change	3	0	3
MGT	0197 Effective Writing and Speaking for Business and Industry	3	0	3
		<u>12</u>	<u>0</u>	<u>12</u>

INDUSTRIAL SUPERVISION AND MANAGEMENT TEXTILE OPTION

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
ISC	0111	Industrial Safety	3	2	3
COE	0100	Cooperative Education Seminar	1	0	1
TEX	0111	Fundamentals of Textiles	3	0	3
		Elective (Math)	<u>3</u>	<u>0</u>	<u>3</u>
			13	2	13
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
ISC	0121	Industrial Engineering Appreciation	3	0	3
TEX	0112	Fiber Sciences	3	0	3
		Elective (Math)	<u>3</u>	<u>0</u>	<u>3</u>
			12	0	12
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0216	Principles of Supervision	3	0	3
EDP	0101	Computer Concepts	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	0	12
FOURTH QUARTER					
PSY	0201	Industrial Psychology	3	0	3
ISC	0122	Basic Electricity and Electronics	3	0	3
TEX	0113	Textile Math I	3	0	3
		Elective (Humanities)	<u>3</u>	<u>0</u>	<u>3</u>
			12	0	12
FIFTH QUARTER					
ECO	0204	Free Enterprise Economics	3	0	3
ISC	0221	Production Planning/Value Analysis	3	0	3
MGT	0191	Department Manager's Training Seminar			
	or				
MGT	0192	Supervisor's Training Seminar	3	0	3
TEX	0114	Textile Math II	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			15	0	15
SIXTH QUARTER					
ECO	0202	Economics Principles	3	2	3
ISC	0113	Quality Control I	3	0	3
TEX	0211	Yarn Forming I	3	0	3
		Elective	<u>3</u>	<u>0</u>	<u>3</u>
			12	2	12
SEVENTH QUARTER					
EDP	0204	Computer Operations for Management	3	2	4
ECO	0261	Labor Economics	3	0	3
DRF	0205	Design Drafting	3	6	5
TEX	0212	Yarn Forming II	<u>3</u>	<u>0</u>	<u>3</u>
			12	8	15
EIGHTH QUARTER					
MGT	0216	Motivational Dynamics	3	0	3
EDP	0270	Robotics Automation Concepts	3	0	3
TEX	0213	Fabric Forming I	<u>3</u>	<u>0</u>	<u>3</u>
			9	0	9

**INDUSTRIAL SUPERVISION AND MANAGEMENT
(NIGHT) T049**

		Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ISC	0111	Industrial Safety	3	2	3
COE	0100	Cooperative Education Seminar	1	0	1
MGT	0190	Leadership Development	3	0	3
		Humanities Requirement	3	0	3
		Elective	3	0	3
			<u>13</u>	<u>2</u>	<u>13</u>
SECOND QUARTER					
ENG	0101	Freshman Composition I	3	0	3
ISC	0121	Industrial Engineering Appreciation	3	0	3
EDP	0101	Computer Concepts	3	0	3
		Elective	3	0	3
			<u>12</u>	<u>0</u>	<u>12</u>
THIRD QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0216	Principles of Supervision	3	0	3
BUS	0239	Business Mathematics	3	2	4
		Elective	3	0	3
			<u>12</u>	<u>2</u>	<u>13</u>
FOURTH QUARTER (SUMMER)					
PSY	0201	Industrial Psychology	3	0	3
ISC	0122	Basic Electricity & Electronics	3	0	3
MAT	0111	Technical Mathematics	3	0	3
ENG	0104	Business Communications	3	0	3
			<u>12</u>	<u>0</u>	<u>12</u>
FIFTH QUARTER					
ECO	0204	Free Enterprise Economics	3	0	3
ISC	0221	Production Planning/Value Analysis	3	0	3
MGT	0191	Department Manager's Training Seminar			
		or			
MGT	0192	Supervisor's Training Seminar	3	0	3
MGT	0193	Accurate Perception and Communication	3	0	3
			<u>12</u>	<u>0</u>	<u>12</u>
SIXTH QUARTER					
ECO	0202	Economics Principles	3	2	3
ISC	0113	Quality Control	3	0	3
BUS	0224	Personnel Management	3	0	3
		Elective	3	0	3
			<u>12</u>	<u>2</u>	<u>12</u>
SEVENTH QUARTER					
EDP	0204	Computer Operations for Management	3	2	4
ECO	0261	Labor Economics and Labor Relations	3	0	3
BUS	0214	Business Management	3	0	3
		Elective	3	0	3
			<u>12</u>	<u>2</u>	<u>13</u>
EIGHTH QUARTER					
MGT	0216	Motivational Dynamics	3	0	3
EDP	0270	Robotics Automation Concepts	3	0	3
		Elective	3	0	3
		Elective	3	0	3
			<u>12</u>	<u>0</u>	<u>12</u>

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	0221	Production Planning/ Value Analysis	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



INSURANCE (Day) T12B

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0239	Business Mathematics	3	2	4
BUS	0101	Beginning Typewriting	2	3	3
BUS	0210	Principles of Accounting	3	2	4
		Elective	3	0	3
			<u>14</u>	<u>7</u>	<u>17</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0272	Introduction to Insurance	2	0	2
BUS	0112	Business Finance	3	0	3
BUS	0211	Principles of Accounting	3	2	4
PSY	0201	Industrial Psychology	3	0	3
		Elective	3	0	3
			<u>17</u>	<u>2</u>	<u>16</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0273	Life and Health Insurance	2	0	2
BUS	0214	Business Management	3	0	3
EDP	0101	Computer Concepts	3	0	3
		Elective	3	0	3
			<u>14</u>	<u>0</u>	<u>14</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0218	Sales Development	3	0	3
BUS	0274	Property and Liability Insurance	2	0	2
BUS	0225	Business Law	3	2	3
ECO	0201	Economic Principles	3	2	3
		Elective	3	0	3
			<u>17</u>	<u>4</u>	<u>17</u>
FIFTH QUARTER					
BUS	0217	Taxes	3	2	4
BUS	0276	Business and Estate Planning	3	0	3
BUS	0277	Employee Benefit Plans	3	0	3
BUS	0226	Business Law	3	0	3
ECO	0202	Economics Principles	3	2	3
			<u>15</u>	<u>4</u>	<u>16</u>
SIXTH QUARTER					
BUS	0270	Property and Liability Insurance Operations	3	0	3
BUS	0227	Business Law	3	0	3
ECO	0203	Economic Principles	3	2	3
EDP	0210	BASIC Programming I	3	2	4
BUS	0279	Risk and Loss Control Management	3	0	3
			<u>15</u>	<u>4</u>	<u>16</u>
TOTAL HOURS					98

INSURANCE (Night) T128

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0239	Business Mathematics	3	2	4
BUS	0101	Beginning Typewriting	2	3	3
BUS	0210	Principles of Accounting	3	2	4
			<u>11</u>	<u>7</u>	<u>14</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0272	Introduction to Insurance	2	0	2
BUS	0112	Business Finance	3	0	3
BUS	0211	Principles of Accounting	3	2	4
			<u>11</u>	<u>2</u>	<u>12</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0273	Life and Health Insurance	2	0	2
BUS	0214	Business Management	3	0	3
EDP	0101	Computer Concepts	3	0	3
			<u>11</u>	<u>0</u>	<u>11</u>
FOURTH QUARTER					
		Elective	3	0	3
		Elective	3	0	3
BUS	0218	Sales Development	3	0	3
PSY	0201	Industrial Psychology	3	0	3
			<u>12</u>	<u>0</u>	<u>12</u>
FIFTH QUARTER					
ENG	0160	Public Speaking	3	0	3
ECO	0201	Economic Principles	3	2	3
BUS	0274	Property and Liability Insurance	2	0	2
BUS	0225	Business Law	3	0	3
			<u>11</u>	<u>2</u>	<u>11</u>
SIXTH QUARTER					
BUS	0217	Taxes	3	2	4
BUS	0277	Employee Benefit Plans	3	0	3
BUS	0226	Business Law	3	0	3
ECO	0202	Economic Principles	3	2	3
			<u>12</u>	<u>4</u>	<u>13</u>
SEVENTH QUARTER					
BUS	0273	Property and Liability Insurance Operations	3	0	3
BUS	0227	Business Law	3	0	3
ECO	0203	Economics Principles	3	2	3
EDP	0210	BASIC Programming I	3	2	4
			<u>12</u>	<u>4</u>	<u>13</u>
EIGHTH QUARTER					
BUS	0276	Business and Estate Planning	3	0	3
BUS	0279	Risk and Loss Control Management	3	0	3
		Elective	3	0	3
		Elective	3	0	3
			<u>12</u>	<u>0</u>	<u>12</u>
TOTAL HOURS					96

MARKETING AND RETAILING (Day) T020

Course Title		Class Hours	Lab Hours	Credit Hours
FIRST QUARTER				
ENG 0101	Freshman Composition I	3	0	3
BUS 0218	Sales Development	3	0	3
BUS 0101	Beginning Typewriting	2	3	3
BUS 0239	Business Mathematics	3	2	4
BUS 0210	Principles of Accounting	3	2	4
		<u>14</u>	<u>7</u>	<u>17</u>
SECOND QUARTER				
ENG 0102	Freshman Composition II	3	0	3
BUS 0107	Business Machines	2	3	4
BUS 0211	Principles of Accounting	3	2	4
PSY 0201	Industrial Psychology	3	0	3
BUS 0262	Retailing	3	2	3
		<u>14</u>	<u>7</u>	<u>17</u>
THIRD QUARTER				
ENG 0104	Business Communications	3	0	3
FDP 0101	Computer Concepts	3	0	3
ECO 0260	Consumer Economics	3	2	3
PSY 0101	Personality Development	3	2	3
DMK 0245	Fashion Merchandising	3	2	4
COE 0100	Cooperative Education Seminar	1	0	1
		<u>16</u>	<u>6</u>	<u>17</u>
FOURTH QUARTER				
ENG 0160	Public Speaking	3	0	3
BUS 0220	Marketing	3	2	4
BUS 0225	Business Law	3	0	3
DMK 0249	Buying and Merchandising	3	2	4
COE 0101/or	Co-op Part-time Work Experience	1	20	2
BUS 0113	Credit Procedures and Problems	3	0	3
		<u>16</u>	<u>24</u>	<u>19</u>
FIFTH QUARTER				
BUS 0221	Advertising	3	2	3
BUS 0226	Business Law	3	0	3
DMK 0260	Commercial Display and Design	3	2	4
BUS 0272	Insurance Licensing Institute	3	0	3
COE 0102	Co-op Part-time Work Experience	1	20	2
		<u>13</u>	<u>24</u>	<u>15</u>
SIXTH QUARTER				
BUS 0216	Principles of Supervision	3	0	3
BUS 0261	Wholesaling	3	0	3
DMK 0265	Fashion in Retailing	3	2	4
COE 0103	Co-op Part-time Work Experience	1	20	2
	Elective	3	0	3
		<u>13</u>	<u>22</u>	<u>15</u>
TOTAL HOURS				100

MARKETING AND RETAILING (Night) T020

Course Title		Class Hours	Lab Hours	Credit Hours	
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0218	Sales Development	3	0	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0210	Principles of Accounting	3	2	4
			<u>11</u>	<u>5</u>	<u>13</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0211	Principles of Accounting	3	2	4
BUS	0262	Retailing	3	2	3
BUS	0239	Business Mathematics	3	2	4
			<u>12</u>	<u>6</u>	<u>14</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
EDP	0101	Computer Concepts	3	0	3
DMK	0245	Fashion Merchandising	3	2	4
COE	0100	Cooperative Education Seminar	1	0	1
			<u>10</u>	<u>2</u>	<u>11</u>
FOURTH QUARTER					
BUS	0107	Business Machines	2	3	4
PSY	0201	Industrial Psychology	3	0	3
ECO	0260	Consumer Economics	3	2	3
COE	0101/or	Co-op Part-time Work Experience	1	20	2
BUS	0113	Credit Procedures and Problems	3	0	3
			<u>12</u>	<u>25</u>	<u>15</u>
FIFTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0220	Marketing	3	2	4
BUS	0225	Business Law	3	0	3
DMK	0249	Buying and Merchandising	3	2	4
			<u>12</u>	<u>4</u>	<u>14</u>
SIXTH QUARTER					
BUS	0221	Advertising	3	2	3
BUS	0226	Business Law	3	0	3
DMK	0260	Commercial Display and Design	3	2	4
BUS	0272	Insurance Licensing Institute	3	0	3
			<u>12</u>	<u>4</u>	<u>13</u>
SEVENTH QUARTER					
BUS	0216	Principles of Supervision	3	0	3
BUS	0261	Wholesaling	3	0	3
DMK	0265	Fashion in Retailing	3	2	4
		Elective	3	0	3
			<u>12</u>	<u>2</u>	<u>13</u>
EIGHTH QUARTER					
PSY	0101	Personality Development	3	2	3
COE	0201	Co-op Full-time Work Experience I	2	40	4
			<u>5</u>	<u>42</u>	<u>7</u>
TOTAL HOURS					100

MARKETING AND RETAILING T020

CERTIFICATE

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

ENG 0101, 0102, 0104, 0160

BUS 0239 Business Mathematics

BUS 0210 Principles of Accounting

BUS 0218 Sales Development

ECO 0260 Consumer Economics

PSY 0101, 0201

Co-op Work Experience

Electives from BUS 261, 262, DMK 245, 249, 260, 265

CREDIT HOURS

6 hours (any 2 courses)

4 hours

4 hours

3 hours

3 hours

3 hours (any 1 course)

14/16 hours

41 hours/43 hours



MECHANICAL ENGINEERING TECHNOLOGY T051

Minimum time for completion: four quarters full-time attendance (machinist phase), eight quarters full-time attendance for total curriculum. Students may enter this program any quarter.

The Vocational Diploma is awarded graduates of the first phase; the Associate in Applied Science degree is awarded graduates of the full curriculum.

The Mechanical Engineering Technology Curriculum is designed to prepare technicians to assist engineers in design and development of machinery and other mechanical equipment and parts, and to perform other activities which require technical knowledge of factors such as tolerances, stresses, strains and friction. The scope of subject matter covered prepares the graduate for employment in greatly diversified branches of the mechanical field.

Upon completion of the first four quarters of the curriculum, the student is prepared to enter employment in the following typical jobs:

- Machinist Apprentice
- Lathe Operator
- Bench Machinist
- Milling Machines Operator
- General Machinist

The following are jobs typically available to graduates of the full curriculum:

- Mechanical Technician
- Testing Technician
- Design Draftsman
- Materials Testing Technician
- Manufacturing Process Development Technician
- Development Lab Technician

MECHANICAL ENGINEERING TECHNOLOGY

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
MEC	0101	Machine Shop Theory & Practice	3	12	7
MAT	0120	Intermediate Algebra	5	0	5
DFT	0104	Blueprint Reading: Mechanical I	0	3	1
MEC	0111	Industrial Safety	3	0	3
			<u>11</u>	<u>15</u>	<u>16</u>
SECOND QUARTER					
MEC	0102	Machine Shop Theory & Practice	3	12	7
EGR	0101	Engineering Drawing I	0	6	3
MAT	0121	College Algebra & Trigonometry	5	0	5
MEC	0118	Introduction to Metals	3	2	4
			<u>11</u>	<u>20</u>	<u>19</u>
THIRD QUARTER					
MEC	0103	Machine Shop Theory & Practice	3	12	7
EGR	0102	Engineering Drawing II	0	6	3
MEC	0119	Applied Metallurgy	3	2	4
MAT	0122	College Algebra & Trigonometry	5	0	5
			<u>11</u>	<u>20</u>	<u>19</u>
FOURTH QUARTER (Optional)					
MEC	0104	Machine Shop Theory & Practice	3	12	7
PHY	0100	Applied Science	3	2	4
PSY	0260	General Psychology	3	0	3
WLD	0135	Basic Gas Welding & Cutting	2	3	3
			<u>11</u>	<u>17</u>	<u>17</u>
FIFTH QUARTER					
ELC	0205	Applied Electricity	2	4	4
PHY	0201	General Physics	3	3	4
ENG	0101	Freshman Composition I	3	0	3
		Social Science Elective	3	0	3
EDP	0101	Computer Concepts	3	0	3
			<u>14</u>	<u>7</u>	<u>17</u>
SIXTH QUARTER					
MEC	0113	Numerical Control Principles	3	0	3
PHY	0202	General Physics	3	3	4
ENG	0102	Freshman Composition II	3	0	3
MEC	0235	Hydraulics and Pneumatics	3	0	3
		Elective	3	0	3
			<u>15</u>	<u>3</u>	<u>16</u>
SEVENTH QUARTER					
ENG	0103	Freshman Composition III	3	0	3
DFT	0211	Mechanisms	3	3	4
MEC	0107	Applied Mechanics	5	0	5
		Humanities Elective	3	0	3
		Elective	3	0	3
			<u>17</u>	<u>3</u>	<u>18</u>
EIGHTH QUARTER					
MEC	0208	Machine Design	3	3	4
MEC	0205	Strength of Materials	5	0	5
ENG	0160	Public Speaking	3	0	3
MEC	0238	AHR Systems	3	0	3
			<u>14</u>	<u>3</u>	<u>15</u>

REAL ESTATE (Day) T127

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0230	Real Estate Fundamentals I & II	6	0	6
BUS	0210	Principles of Accounting	3	2	4
BUS	0239	Business Mathematics	3	2	4
			<u>15</u>	<u>4</u>	<u>17</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0238	Real Estate Law	3	0	3
BUS	0231	Real Estate Finance and Investment	3	0	3
BUS	0211	Principles of Accounting	3	2	4
PSY	0201	Industrial Psychology	3	0	3
			<u>15</u>	<u>2</u>	<u>16</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0120	Real Estate Construction	3	0	3
BUS	0121	Real Estate Math	3	0	3
BUS	0101	Beginning Typewriting	2	3	3
		Elective	3	0	3
			<u>14</u>	<u>3</u>	<u>15</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0233	Real Estate Appraisal	6	0	6
BUS	0225	Business Law	3	0	3
BUS	0218	Sales Development	3	0	3
BUS	0220	Marketing	3	2	4
			<u>18</u>	<u>2</u>	<u>19</u>
FIFTH QUARTER					
BUS	0235	Real Estate Property Management	3	0	3
BUS	0122	Real Estate Brokerage	3	0	3
BUS	0226	Business Law	3	0	3
BUS	0221	Advertising	3	2	3
BUS	0107	Business Machines	2	3	4
		Elective	3	0	3
			<u>17</u>	<u>5</u>	<u>19</u>
SIXTH QUARTER					
BUS	0123	Real Estate Merchandising	3	0	3
BUS	0242	Real Estate Investments and Taxation	3	0	3
BUS	0227	Business Law	3	0	3
EDP	0101	Computer Concepts	3	0	3
		Electives	6	0	6
			<u>18</u>	<u>0</u>	<u>18</u>

REAL ESTATE (Night) T127

Course Title		Class Hours	Lab Hours	Credit Hours	
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0230	Real Estate Fundamentals I & II	6	0	6
			<u>9</u>	<u>0</u>	<u>9</u>
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0238	Real Estate Law	3	0	3
BUS	0231	Real Estate Finance and Investment	3	0	3
			<u>9</u>	<u>0</u>	<u>9</u>
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0120	Real Estate Construction	3	0	3
BUS	0121	Real Estate Math	3	0	3
			<u>9</u>	<u>0</u>	<u>9</u>
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0233	Real Estate Appraisal	6	0	6
BUS	0220	Marketing	3	2	4
			<u>12</u>	<u>2</u>	<u>13</u>
FIFTH QUARTER					
BUS	0235	Real Estate Property Management	3	0	3
BUS	0122	Real Estate Brokerage	3	0	3
BUS	0221	Advertising	3	2	3
PSY	0201	Industrial Psychology	3	0	3
			<u>12</u>	<u>2</u>	<u>12</u>
SIXTH QUARTER					
BUS	0123	Real Estate Merchandising	3	0	3
BUS	0242	Real Estate Investments and Taxation	3	0	3
EDP	0101	Computer Concepts	3	0	3
		Elective	3	0	3
			<u>12</u>	<u>0</u>	<u>12</u>
SEVENTH QUARTER					
BUS	0210	Principles of Accounting	3	2	4
BUS	0225	Business Law	3	0	3
BUS	0239	Business Mathematics	3	2	4
BUS	0218	Sales Development	3	0	3
			<u>12</u>	<u>4</u>	<u>14</u>
EIGHTH QUARTER					
BUS	0211	Principles of Accounting	3	2	4
BUS	0101	Beginning Typewriting	2	3	3
BUS	0226	Business Law	3	0	3
BUS	0107	Business Machines	2	3	4
			<u>10</u>	<u>8</u>	<u>14</u>
NINTH QUARTER					
BUS	0227	Business Law	3	0	3
		Electives	9	0	9
			<u>12</u>	<u>0</u>	<u>12</u>

REAL ESTATE CERTIFICATE T127

ENG	0101	Freshman Composition I	3
ENG	0160	Public Speaking	3
BUS	0239	Business Mathematics/	
BUS	0234	Real Estate Math	4/3
BUS	0230	Real Estate Fundamentals	6
BUS	0231	Real Estate Finance	3
BUS	0230	Real Estate Law	3
			22/21
Electives			9
			31/30

TRAFFIC AND TRANSPORTATION (Day) T034

		Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0239	Business Mathematics	3	2	4
BUS	0210	Principles of Accounting	3	2	4
BUS	0140	Materials Handling	3	0	3
BUS	0141	Marketing Transportation	3	0	3
			15	4	17
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0211	Principles of Accounting	3	2	4
PSY	0201	Industrial Psychology	3	0	3
BUS	0142	Transportation and Traffic Management I	3	0	3
BUS	0254	Motor Carrier Management	3	0	3
			15	2	16
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0101	Beginning Typewriting	2	3	3
BUS	0143	Transportation and Traffic Management II	3	0	3
BUS	0256	Governmental Regulation and Safety	3	0	3
		Elective	3	0	3
			14	3	15
FOURTH QUARTER					
ENG	0160	Public Speaking	3	0	3
BUS	0144	Carrier Rates I	3	0	3
BUS	0225	Business Law	3	0	3
BUS	0257	Physical Distribution Management	3	0	3
ECO	0262	Transportation Economics	3	0	3
			15	0	15
FIFTH QUARTER					
BUS	0258	Freight Loss and Damage Claims I	3	0	3
BUS	0145	Carrier Rates II	3	0	3
BUS	0107	Business Machines	2	3	4
BUS	0226	Business Law	3	0	3
		Electives	6	0	6
			17	3	19

SIXTH QUARTER

BUS	0146	Carrier Rates III	3	0	3
BUS	0259	Freight Loss and Damage Claims II	3	0	3
BUS	0255	Transportation Regulations	3	0	3
BUS	0227	Business Law	3	0	3
EDP	0101	Computer Concepts Elective	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			18	0	18

TRAFFIC AND TRANSPORTATION (Night) T034

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ENG	0101	Freshman Composition I	3	0	3
BUS	0140	Materials Handling	3	0	3
BUS	0141	Marketing Transportation	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			9	0	9
SECOND QUARTER					
ENG	0102	Freshman Composition II	3	0	3
BUS	0142	Transportation and Traffic Management I	3	0	3
BUS	0254	Motor Carrier Management	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			9	0	9
THIRD QUARTER					
ENG	0104	Business Communications	3	0	3
BUS	0143	Transportation and Traffic Management II	3	0	3
BUS	0256	Governmental Regulation and Safety	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			9	0	9
FOURTH QUARTER					
BUS	0144	Carrier Rates I	3	0	3
BUS	0225	Business Law	3	0	3
BUS	0257	Physical Distribution Management	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			9	0	9
FIFTH QUARTER					
BUS	0258	Freight Loss and Damage Claims I	3	0	3
BUS	0145	Carrier Rates II	3	0	3
BUS	0226	Business Law	3	0	3
		Elective	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			12	0	12
SIXTH QUARTER					
BUS	0146	Carrier Rates III	3	0	3
BUS	0259	Freight Loss and Damage Claims II	3	0	3
BUS	0255	Transportation Regulations	3	0	3
BUS	0227	Business Law	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			12	0	12
SEVENTH QUARTER					
BUS	0210	Principles of Accounting	3	2	4
BUS	0239	Business Mathematics	3	2	4
ENG	0160	Public Speaking	3	0	3
ECO	0260	Transportation Economics	3	0	3
			<u>3</u>	<u>0</u>	<u>3</u>
			12	4	14

EIGHTH QUARTER

BUS	0211	Principles of Accounting	3	2	4
PSY	0201	Industrial Psychology	3	0	3
BUS	0107	Business Machines	2	3	4
		Elective	3	0	3
			<u>11</u>	<u>5</u>	<u>14</u>

NINTH QUARTER

BUS	0101	Beginning Typewriting	2	3	3
EDP	0101	Computer Concepts	3	0	3
		Electives	6	0	6
			<u>11</u>	<u>3</u>	<u>12</u>

TRAFFIC AND TRANSPORTATION T034**Certificate Program**

Course Title			Class Hours	Lab Hours	Credit Hours
BUS	0107	Business Machines	2	3	4
BUS	0144	Carrier Rates I	3	0	3
BUS	0145	Carrier Rates II	3	0	3
BUS	0146	Carrier Rates III	3	0	3
BUS	0225	Business Law	3	0	3
EDP	0101	Introduction to Data Processing Systems	3	0	3
ENG	0101	Freshman Composition I	3	0	3
ENG	0160	Public Speaking	3	0	3
PSY	0201	Industrial Psychology	3	0	3
			<u>26</u>	<u>3</u>	<u>28</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. Students may enter this program any quarter.

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)	15
EDU 0111, 0112, 0113, 0114, and EDP 0101	
D. Electives	11

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:

DSM	0101	Basic Math II	5	0	3
MAT	0111	Technical Math	3	0	3
		or			
MAT	0101	Finite Math I	4	0	4
		or			
MAT	0120	Intermediate Algebra	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
EDP	0101	Computer Concepts	3	0	3

ELECTIVES:

Any advisor approved fourteen hours of electives.

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	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER (Fall)					
EDU	0107	Administration, Supervision	3	0	3
EDU	0101	Introduction to Education	3	0	3
EDU	0208	Art and Music	3	0	3
EDP	0101	Computer Concepts	3	0	3
EDU	0240	Practicum	0	15	5
EDU	0241	Seminar	1	0	1
			<u>13</u>	<u>15</u>	<u>18</u>
SECOND QUARTER (Winter)					
PSY	0115	Human Growth and Development	3	0	3
EDU	0115	Language Arts	3	0	3
EDU	0203	Exceptional Child	3	0	3
DSM	0100	Basic Math	5	0	3
EDU	0242	Practicum	0	15	5
EDU	0243	Seminar	1	0	1
			<u>15</u>	<u>15</u>	<u>18</u>
THIRD QUARTER (Spring)					
PSY	0116	Human Growth and Development II	3	0	3
HEA	0104	First Aid	3	0	3
PER	0240	Children's Physical Education	3	0	3
		Elective	3	0	3
EDU	0244	Practicum	0	15	5
EDU	0245	Seminar	1	0	1
			<u>13</u>	<u>15</u>	<u>18</u>
FOURTH QUARTER (Summer)					
EDU	0108	Math and Science	3	0	3
EDU	0109	Learning Activities	3	0	3
ENG	0101	Freshman Composition I	3	0	3
EDU	0213	Children's Literature	3	0	3
EDU	0246	Practicum	0	15	5
EDU	0247	Seminar	1	0	1
			<u>13</u>	<u>15</u>	<u>18</u>

FIFTH QUARTER (Fall)

RED	0102	Methods, Materials and Techniques of Reading I	3	0	3
ENG	0102	Freshman Composition II	3	0	3
		Humanities Elective	3	0	3
EDU	0248	Practicum	0	15	5
EDU	0249	Seminar	1	0	1
BUS	0239	Business Math	3	2	4
			<u>13</u>	<u>17</u>	<u>19</u>

SIXTH QUARTER (Winter)

RED	0103	Methods, Materials and Techniques of Reading II	3	0	3
BUS	0101	Typing	3	0	3
ENG	0103	Freshman Composition III	3	0	3
ENG	0160	Public Speaking	3	0	3
EDU	0250	Practicum	0	15	5
EDU	0251	Seminar	1	0	1
			<u>13</u>	<u>15</u>	<u>18</u>



RECREATION ASSOCIATE T-094

Outdoor Recreational Technology is designed to prepare students for entry level staff and administrative positions in a variety of public and private recreational facilities. The program will provide for the development of leadership and administrative skills required for planning, operating, and maintaining recreational facilities and programs. Students will be prepared to lead various recreational activities such as backpacking, sports and games, canoeing, arts and crafts, sailing, camping, swimming, etc. Major emphasis is placed on the wilderness and outdoor recreation areas, however, attention is given to basic recreation principles and practices applicable to other private and public recreational facilities and programs.

RECREATION ASSOCIATE

Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER			
ENG 0101 Freshman Composition I	3	0	3
REC 0101 Introduction to Recreation	3	0	3
REC 0102 Recreational Activities I	2	3	3
REC 0109 Group Sports and Games	2	3	3
*PED 0130 Beginning Swimming	0	3	1
REC 0113 Camping and Backpacking	2	3	3
	12	12	16
SECOND QUARTER			
ENG 0102 Freshman Composition II	3	0	3
REC 0103 Recreational Activities II	2	3	3
REC 0120 Group Leadership and Supervision	3	0	3
HEA 0112 Personal and Community Health	5	0	5
PED 0131 Advanced Beginning Swimming (or PED Elective)	0	3	1
PED 0101 Concepts in Physical Education	1	2	2
BUS 0239 Business Mathematics	3	2	4
	17	10	21
THIRD QUARTER			
ENG 0104 Business Communications	3	0	3
REC 0104 Recreational Activities III	2	3	2
REC 0106 Small Craft Operation I	3	3	4
PED 0132 Swimming Techniques (or PED Elective)	0	3	1
REC 0115 Anatomy and Physiology of Exercise	3	0	3
PSY 0117 Human Growth and Development	3	0	3
REC 0114 Wilderness Experience	2	3	3
	16	12	20
FOURTH QUARTER			
REC 0130 Field Experience	1	30	4

FIFTH QUARTER

REC	0111	Outdoor Recreation	3	3	4
REC	0123	Camp Management	3	0	3
PED	0133	Basic Rescue and Water Survival	0	3	1
SOC	0160	Introduction to Sociology	3	0	3
REC	0110	Individual Sports and Games	2	3	3
ECO	0260	Consumer Economics	3	2	3
			<u>14</u>	<u>11</u>	<u>17</u>

SIXTH QUARTER

REC	0117	Psychology of Sports and Recreation	3	0	3
REC	0121	Program Planning	3	0	3
PED	0134	Advanced Lifesaving (or PED Elective)	0	3	1
EDU	0162	Job Seeking Skills	1	0	1
REC	0105	Arts and Crafts	1	3	2
		Humanities Requirement	3	0	3
REC	0116	First Aid and Safety in Recreation	4	0	4
			<u>15</u>	<u>6</u>	<u>17</u>

SEVENTH QUARTER

REC	0112	Outdoor Recreational Activities	2	3	3
REC	0107	Small Craft Operation II	3	3	4
REC	0122	Facility Planning	3	0	3
PED	138	Water Safety Instructor Training (or PED Elective)	0	3	1
REC	0108	Aquatic Activities	1	3	2
REC	0124	Facility and Grounds Maintenance	2	3	3
CPS	0101	Computer Concepts	3	0	3
			<u>14</u>	<u>15</u>	<u>19</u>

TOTAL HOURS

89	96	114
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Students, upon recommendation of the department, may fulfill the requirements of REC 0130 by approved cooperative work experience.

*SWIMMING REQUIREMENT: All Recreation Technology Students must meet the following criteria:

1. Take the swimming competency test.
2. Successfully complete one approved swimming course. An approved swimming course will be determined on the basis of the Swimming Competency Test results.

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
Welding
Child Care Worker
Cosmetology
Nurse Assistant
Practical Nursing
Electrical Installation
and Maintenance
Electronic Servicing—Radio/T.V. Repair
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. Students may enter this program any quarter.

AUTO BODY REPAIR V001

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
AUB	1101	Auto Body Repair	2	15	7
AUB	1118	Auto Body Problems I	1	6	3
WLD	1111	Basic Gas Welding	0	3	1
MAT	1101	Math Fundamentals	<u>3</u>	<u>0</u>	<u>3</u>
			6	24	14
SECOND QUARTER					
AUB	1102	Auto Body Repair II	2	15	7
AUB	1119	Auto Body Problems II	5	3	6
WLD	1112	Basic Arc Welding	0	3	1
ENG	1101	Communications	<u>3</u>	<u>0</u>	<u>3</u>
			10	21	17
THIRD QUARTER					
AUB	1103	Auto Body Repair III	2	15	7
AUB	1120	Auto Body Problems III	4	6	6
PSY	1100	Human Relations	<u>3</u>	<u>0</u>	<u>3</u>
			9	21	16
FOURTH QUARTER					
AUB	1104	Auto Body Repair IV	2	15	7
AUB	1121	Auto Body Problems IV	<u>4</u>	<u>9</u>	<u>7</u>
			6	24	14

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. Students may enter this program any quarter.

AUTOMOTIVE MECHANICS

Course Title			Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
AUM	1101	Engine Electrical Fuel Systems	2	15	7
AUM	1111	Schematics and Diagrams	1	3	2
AUM	1118	Automotive Problems	3	3	4
MAT	1101	Math Fundamentals	<u>3</u>	<u>0</u>	<u>3</u>
			9	21	16
SECOND QUARTER					
AUM	1102	Brakes, Chassis, & Suspension	2	15	7
AUM	1112	Schematics and Diagrams	1	3	2
AUM	1126	Automotive Air Conditioning	3	3	4
MAT	1102	Measurements	<u>3</u>	<u>0</u>	<u>3</u>
			9	21	16
THIRD QUARTER					
AUM	1103	Internal Combustion Engines	2	15	7
AUM	1113	Schematics and Diagrams	4	6	6
ENG	1101	Communications	<u>3</u>	<u>0</u>	<u>3</u>
			9	21	16
FOURTH QUARTER					
AUM	1104	Automotive Power Train Systems	2	15	7
AUM	1125	Auto Servicing I	4	6	6
BUS	1100	Small Business Operations	<u>3</u>	<u>0</u>	<u>3</u>
			9	21	16

FIFTH QUARTER (Automotive Option)

AUM	1202	Auto Electrical/Electronics	2	6	4
AUM	1203	Engine Tune-Up	2	15	7
AUM	1139	Basic Hydraulics & Pneumatics	2	3	3
			<u>6</u>	<u>24</u>	<u>14</u>

SIXTH QUARTER

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

FIFTH QUARTER (Diesel Option)

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

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	3	6	5
			<u>9</u>	<u>21</u>	<u>16</u>

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

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



CHILD CARE WORKER V067

The Child Care Worker Program, V-067, 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, nursery school, or as a teacher/aid in public schools.

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

CHILD CARE WORKER

	Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER (Fall)				
EDU 0107	Administration, Supervision & Standards	3	0	3
EDU 0101	Introduction to Education	3	0	3
EDU 0208	Art and Music Elective	3	0	3
EDU 0240	Practicum	0	15	5
EDU 0241	Seminar	1	0	1
		<u>13</u>	<u>15</u>	<u>18</u>
SECOND QUARTER (Winter)				
PSY 0115	Human Growth and Development	3	0	3
EDU 0115	Language Arts	3	0	3
EDU 0203	Exceptional Child	3	0	3
DSM 0100	Basic Math	5	0	3
EDU 0242	Practicum	0	15	5
EDU 0243	Seminar	1	0	1
		<u>15</u>	<u>15</u>	<u>18</u>
THIRD QUARTER (Spring)				
PSY 0116	Human Growth and Development II	3	0	3
HEA 0104	First Aid	3	0	3
PER 0240	Children's Physical Education Elective	3	0	3
EDU 0244	Practicum	0	15	5
EDU 0245	Seminar	1	0	1
		<u>13</u>	<u>15</u>	<u>18</u>
FOURTH QUARTER (Summer)				
EDU 0108	Math and Science	3	0	3
EDU 0109	Learning Activities	3	0	3
ENG 0101	Freshman Composition I	3	0	3
EDU 0213	Children's Literature	3	0	3
EDU 0246	Practicum	0	15	5
EDU 0247	Seminar	1	0	1
		<u>13</u>	<u>15</u>	<u>18</u>

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 1200 hours of instruction in addition to the College's Graduation Requirements. Students may enter this program any quarter.

Students registering for Cosmetology are required to take a total of 6 credit hours of the related courses below before graduation.

MUS 1100	2 (Hours per week)	2 (credit hours)
ENG 1100	2 (Hours per week)	2 (credit hours)
ART 1100	2 (Hours per week)	2 (credit hours)

COSMETOLOGY—DAY CURRICULUM

Course Title	Quarter		
	Hours Per Week Class	Hours Clinical	Hours Credit
FIRST QUARTER			
COS 1101 Scientific Study	5	0	5
COS 1011 Clinical Application	0	25	8
ENG 1100 Communication Skills	2	0	2
	<u>7</u>	<u>25</u>	<u>15</u>

SECOND QUARTER

COS	1102	Scientific Study	5	0	5
COS	1022	Clinical Application	0	25	8
ART	1100	Art Awareness	<u>2</u>	<u>0</u>	<u>2</u>
			7	25	15

THIRD QUARTER

COS	1103	Scientific Study	5	0	5
COS	1033	Clinical Application	0	25	8
MUS	1100	Music Awareness	<u>2</u>	<u>0</u>	<u>2</u>
			7	25	15

FOURTH QUARTER

COS	1104	Scientific Study	5	0	5
COS	1044	Clinical Application	<u>0</u>	<u>25</u>	<u>8</u>
			5	25	13

FIFTH QUARTER (Optional)

COS	1105	Scientific Study	5	0	5
COS	1055	Clinical Application	<u>0</u>	<u>25</u>	<u>8</u>
			5	25	13

COSMETOLOGY—AFTERNOON AND NIGHT CURRICULUM

Course Title		Hours Per Week		Quarter	
		Class	Clinical	Hours Credit	
FIRST QUARTER					
COS	2101	Scientific Study	4	0	4
COS	2011	Clinical Application	0	16	5
ART	1100	Art Awareness	<u>2</u>	<u>0</u>	<u>2</u>
			6	16	11
SECOND QUARTER					
COS	2102	Scientific Study	4	0	4
COS	2022	Clinical Application	0	16	5
MUS	1100	Music Awareness	<u>2</u>	<u>0</u>	<u>2</u>
			6	16	11
THIRD QUARTER					
COS	2103	Scientific Study	4	0	4
COS	2033	Clinical Application	0	16	5
ENG	1100	Communication Skills	<u>2</u>	<u>0</u>	<u>2</u>
			6	16	11
FOURTH QUARTER					
COS	2104	Scientific Study	4	0	4
COS	2044	Clinical Application	<u>0</u>	<u>16</u>	<u>5</u>
			4	16	9
FIFTH QUARTER					
COS	2105	Scientific Study	4	0	4
COS	2055	Clinical Application	<u>0</u>	<u>16</u>	<u>5</u>
			4	16	9
SIXTH QUARTER					
COS	2106	Scientific Study	4	0	4
COS	2066	Clinical Application	<u>0</u>	<u>16</u>	<u>5</u>
			4	16	9
SEVENTH QUARTER (Optional)					
COS	2107	Scientific Study	4	0	4
COS	2077	Clinical Application	<u>0</u>	<u>16</u>	<u>5</u>
			4	16	9

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. Students may enter this program any quarter.

ELECTRICAL INSTALLATION AND MAINTENANCE V018

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
ELC	1101	Fundamentals of Electricity	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	National 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	4	3	5
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	Applied Science	<u>3</u>	<u>2</u>	<u>4</u>
			10	20	17

HEATING, AIR CONDITION AND REFRIGERATION

In recent years the use of air conditioning and refrigeration equipment has increased tremendously. Practically all new building construction for business and commercial use have "all year" comfort systems. Many houses now have air conditioning and the trend is toward greater use of "all year" systems of cooling and heating. The food industry is requiring greater use of refrigeration systems in freezing, storage, and display of products. With this great upswing in the use of air conditioning and refrigeration equipment, a great demand is made on trained personnel to install, operate, maintain and service this equipment.

This curriculum is designed to give the students practical knowledge that will enable them to become capable service men in the industry. The principal objective has been to outline the required technical and related instruction to enable them to understand the basic principles involved in the construction, operation, and maintenance of equipment. Job opportunities exist with companies that specialize in air conditioning, automatic heating, sheet metal and commercial refrigeration installation and service. The service man is employable in areas of sales, maintenance, installation and in the growing field of truck and trailer refrigeration.

OCCUPATIONAL OPPORTUNITIES

The air conditioning and refrigeration mechanic installs, inspects, maintains, services, and repairs domestic and commercial equipment, connects motors, compressors, temperature controls, humidity controls and circulating fans to control panels, tests systems, observes pressure and vacuum gauges and adjusts controls to insure proper operation.

HEATING, AIR CONDITIONING AND REFRIGERATION V-024

Course Title			Class	Lab	Credit
FIRST QUARTER			Hours	Hours	Hours
MAT	1103	Electrical Math I	5	0	5
DFT	1111	Blueprint-Electrical	0	3	1
ELC	1101	Fundamentals of Electricity	2	15	7
ELC	1118	Basic Electronics	<u>2</u>	<u>3</u>	<u>3</u>
			9	21	16
SECOND QUARTER					
MAT	1104	Electrical Math II	5	0	5
AHR	1121	Fundamentals of Refrigeration - Domestic	5	12	9
ENG	1101	Communication Skills	<u>3</u>	<u>0</u>	<u>3</u>
			13	12	17
THIRD QUARTER					
AHR	1122	Fundamentals of Refrigeration - Commercial	5	12	9
AHR	1123	Principles of Air Conditioning	4	3	5
WLD	1111	Basic Gas Welding	0	3	1
DFT	1116	Blueprints - Air Conditioning	<u>0</u>	<u>3</u>	<u>1</u>
			9	21	16
FOURTH QUARTER					
AHR	1124	Principles of Heating - Fuels and Burners	5	9	8
AHR	1126	All-year Comfort Systems and A/C Servicing	4	9	7
EST	1111	Estimating	<u>3</u>	<u>0</u>	<u>3</u>
			12	18	18



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. Students may enter this program fall and spring quarters only.

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

ELECTRONIC SERVICING V-042

		Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER					
ELN	1101	Fundamentals of Electronics	8	17	14
MAT	1103	Electrical Math I	5	0	5
			<u>13</u>	<u>17</u>	<u>19</u>
SECOND QUARTER					
ELN	1102	Tubes/Transistors	8	17	14
MAT	1104	Electrical Math II	5	0	5
			<u>13</u>	<u>17</u>	<u>19</u>
THIRD QUARTER					
BUS	1100	Small Business Operations	3	0	3
PSY	1100	Human Relations	3	0	3
ELN	1103	Radio Receiver Servicing	7	17	13
			<u>13</u>	<u>27</u>	<u>19</u>
FOURTH QUARTER					
ELN	1104	TV Receiver Servicing	7	15	13
PHY	1100	Applied Science	3	2	4
ENG	1101	Communications	3	0	3
			<u>13</u>	<u>17</u>	<u>20</u>

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 in one of the above fields. Students can enter this program fall quarter only.

MACHINIST V032

Course Title	Hours Per Week		Quarter
	Class	Lab	Hours Credit
FIRST QUARTER			
MEC 1101 Machine Shop Theory & Practice	3	15	8
MAT 1101 Fundamentals of Math	3	0	3
DFT 1104 Blueprint Reading	0	3	1
ISC 0111 Industrial Safety	3	2	4
	<u>9</u>	<u>20</u>	<u>16</u>
SECOND QUARTER			
MEC 1102 Machine Shop Theory & Practice	3	12	7
DFT 1105 Blueprint Reading	0	3	1
MAT 0111 Technical Math	3	0	3
ENG 1101 Communications	3	0	3
MEC 1118 Introduction to Metals	3	2	4
	<u>12</u>	<u>17</u>	<u>18</u>
THIRD QUARTER			
MEC 1103 Machine Shop Theory & Practice	3	15	8
MAT 1123 Machinist Math	3	0	3
MEC 1119 Applied Metallurgy	3	2	5
DFT 1106 Blueprint Reading	0	3	1
	<u>9</u>	<u>20</u>	<u>17</u>
FOURTH QUARTER			
MEC 1104 Machine Shop Theory & Practice	3	12	7
PHY 1100 Applied Science	3	2	4
PSY 1100 Human Relations	3	0	3
WLD 1135 Basic Gas Welding & Cutting	2	3	3
	<u>11</u>	<u>17</u>	<u>17</u>



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. Students may enter this program fall quarter only.

PRACTICAL NURSE EDUCATION

V-038

		Course Title	Hour Per Week			Hours Credit
			Class	Lab	Clin.	
FIRST QUARTER (Fall)						
BIO	1102	Anatomy/Physiology	3	2	0	4
NUT	0101	Nutrition & Diet Therapy	3	0	0	3
NUR	1101	Nursing Fundamentals	6	6	3	8
NUR	1105	Pharmacology I	3	0	0	3
ENG	0101	Freshman Composition I	3	0	0	3
			18	8	3	21
Contact: 29						
SECOND QUARTER (Winter)						
BIO	1103	Anatomy & Physiology	3	2	0	4
NUR	1102	Med-Surg I	9	0	12	13
NUR	1107	Pharmacology II	1	0	0	1
PSY	0260	General Psychology	3	0	0	3
			16	2	12	21
Contact: 30						
THIRD QUARTER (Spring)						
NUR	1103	Maternity Nursing	5	0	9	8
NUR	1108	Pediatrics	5	0	9	8
PSY	0117	Human Growth & Development	3	0	0	3
			13	0	18	19
Contact: 31						
FOURTH QUARTER (Summer)						
NUR	1104	Med-Surg II	8	0	18	14
NUR	1106	Voc-Adjustment I	3	0	0	3
			11	0	18	17
Contact: 29						
TOTAL HOURS						78

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. Students may enter this program any quarter.

WELDING V050

Course Title	Class Hours	Lab Hours	Credit Hours
FIRST QUARTER			
WLD 1101 Welding I	2	15	7
WLD 1118 Welding Problems I	5	3	6
DFT 1101 Blueprints: Mechanical	0	2	1
MAT 1101 Math Fundamentals	<u>3</u>	<u>0</u>	<u>3</u>
	10	20	17
SECOND QUARTER			
WLD 1102 Welding II	2	15	7
WLD 1119 Welding Problems and Blueprint Reading	4	3	5
ENG 1101 Communications	3	0	3
MAT 1102 Measurements	<u>3</u>	<u>0</u>	<u>3</u>
	12	18	18
THIRD QUARTER			
WLD 1103 Welding III	2	15	7
WLD 1120 Welding Problems III	5	3	6
DFT 1103 Pattern Sketching	0	2	1
PSY 1100 Human Relations	<u>3</u>	<u>0</u>	<u>3</u>
	10	20	17
FOURTH QUARTER			
WLD 1104 Welding IV	2	15	7
WLD 1121 Welding Problems IV	4	6	6
WLD 1140 Metallurgy for Welders	<u>3</u>	<u>0</u>	<u>3</u>
	9	21	16

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

**MACHINIST
(EVENING CERTIFICATE PROGRAM)**

Course Title			Class	Lab	Credit
			Hours	Hours	Hours
FIRST QUARTER					
MEC	1101	Machine Shop Theory and Practice	3	12	7
SECOND QUARTER					
MEC	1102	Machine Shop Theory and Practice	3	12	7
THIRD QUARTER					
MEC	1103	Machine Shop Theory and Practice	3	12	7
FOURTH QUARTER					
MEC	1104	Machine Shop Theory and 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 V-072
(Day—Certificate)**

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 and nursing home setting.

NURSE ASSISTANT V-072

		Course Title	Hours Per Week			Qtr. Hour Credit
			Class	Lab	Clin.	
NUA	1111	Nurse Assistant	9	6	0	12
NUA	1111	Nurse Assistant Practicum	—	—	15	5
			9	6	15	17



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 each quarter, 8 a.m.-3 p.m. and 5:30-9:30 p.m., also offered on week-ends.

ICC CAMPUS

BUS 0101	Beginning Typewriting
BUS 0102	Typewriting II
BUS 0103	Typewriting III
BUS 0107	Business Machines
BUS 0108	Filing
BUS 0201	Advanced Typewriting
BUS 0202	Dictation & Transcription I
BUS 0203	Dictation & Transcription II
BUS 0204	Dictation & Transcription III
BUS 0205	Machine Transcription
BUS 0206	Terminology & Transcription
BUS 0207	Medical Terminology
BUS 0208	Stenoscript I
BUS 0209	Stenoscript II
BUS 0210	Principles of Accounting
BUS 0211	Principles of Accounting
BUS 0212	Principles of Accounting
BUS 0213	Secretarial Procedures
BUS 0219	Legal Terminology
BUS 0239	Business Math

- BUS 0290 Medical Transcription
- BUS 0291 Legal Transcription
- COE 0100 Cooperative Education
- ENG 0101 Freshman Composition I
- HIS 0101 Western Civilization
- HIS 0102 Western Civilization
- HIS 0103 Western Civilization
- HIS 0260 History of United States
- HIS 0261 History of United States
- HIS 0262 History of United States
- PSY 0260 General Psychology
- RED 0260 Speed Reading
- SOC 0160 Introduction to Sociology

Specific course requirements for these courses are available in the IIC. Feel free to drop by at any time during the quarter and examine any course materials in which you might be interested.





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 or Vocational 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

- T112—Banking and Finance
- T018—Business Administration
- T022—Data Processing
- T073—Early Childhood Specialist
- T030—Executive Secretarial
- T033—General Office Technology
- T049—Industrial Supervision and Management
- T128—Insurance
- T010—Marketing and Retailing
- T127—Real Estate
- T088—Teacher Assistant
- T034—Traffic and Transportation

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 6 (Business Education) and make application to the program.

SPECIAL SERVICES PROGRAM

Special Services is designed to teach students skills needed to succeed in college courses. Students are assisted in developing a more positive self concept and to realistically assess and set his/her vocational and educational goals.

Each student's strengths and weaknesses are diagnosed in the areas of English, Reading, and Mathematics. The instructor prescribes an individual program to assist the student in improving those skills which would afford him/her the greatest degree of satisfaction, competency and success.

Additional courses which are offered include Study Skills (English 0163), Spelling Improvement, Vocabulary, Human Potential Seminar (Psychology 0100), Stress and Anxiety Reduction (Psychology 0103).

The Special Services counselor is available to assist students with personal, academic, or career counseling and also provides Financial Aid information.

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

AMERICAN INSTITUTE OF BANKING

AIB 0110 Teller Operations

4-0-4

This course identifies and gives the student basic instructions in the fundamental teller functions. The course focuses on check cashing, security procedures, loss prevention and customer relations. The student is given the opportunity to demonstrate skills through simulated banking transactions. Prerequisite: None.

AIB 0123 Financial Business Enterprises

4-0-4

Basic financial management including the study of the nature of financial management and financial analysis, planning and control; long-term investment decisions; and valuation and financial structure. This course is taught from the standpoint of the banking institution. Prerequisite: None.

AIB 0203 Bank Investments

4-0-4

Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, this course describes the nature of such funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their random and cyclical fluctuations, showing the influence of these factors and investment policy. This analysis is followed by a study of yield changes as they effect a bank's long-term holdings. Prerequisite: None.

AIB 0205 Bank Management

4-0-4

This course presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. The case method is introduced as a technique of evaluating effective management. Prerequisite: AIB 0202.

AIB 0209 Installment Credit

4-0-4

The techniques of installment lending are presented concisely. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of the bank's installment credit operation is carefully scrutinized. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending. Prerequisite: None.

AIB 0210 Money and Banking

4-0-4

This course stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in effecting yield curves and the structuring of portfolios. Prerequisite: None.

AIB 0219 Credit Administration

4-0-4

This course has been designed to assist in the training of lending officers and bank credit administration. It stresses the importance for a banking institution to develop and follow sound lending and credit administration policies. Methods of credit investigation and analysis, credit techniques, specific credit problems, and regulate as well as unusual types of loans are presented and discussed. Prerequisite: None.

AIB 0227 Management of Commercial Bank Funds

4-0-4

This course deals with those necessary principles from which the student can derive an adequate philosophy of funds management. Differences between practices in large banks and smaller institutions are defined. The importance of funds management as the catalyst that brings together policies in the areas of loans, deposits, investments and capital, and relates each to the other is stressed. Prerequisite: None.

AIB 0233 Analysis of Financial Statements

4-0-4

A primary function of banking is the extension of credit. To know how to extend credit soundly and constructively, a banker must be able to understand and interpret financial statements. This course has been carefully designed to give a thorough understanding of financial statements and their interpretation. It is soundly based on what actually occurs in the industry. Prerequisite: None.

AIB 0235 Loan and Discount

4-0-4

This course presents the essential facts about promissory notes, including calculating interest and discounting commercial paper; guaranties; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks; and the concepts of attachment, perfection, priority, default, and foreclosure. The course uses programmed instruction and several simulated exercises.

AIR CONDITIONING, HEATING AND REFRIGERATION**AHR 1121 Fundamentals of Refrigeration: Domestic**

5-12-9

Terminology, laws of refrigeration, absolute pressure, and absolute temperature, energy conversion units; specific heat, latent heat, and sensible heat; measurement of heat in quantity and intensity; ton of refrigeration, pressure temperature relationships; transfer of heat by conduction, convection, and radiation; elementary refrigeration, refrigeration cycle and domestic refrigeration circuits and controls. Tools, materials, and methods applicable to refrigeration; bending, and joining tubing. Safety practices will be stressed. Emphasis will be placed on domestic equipment because of its basic nature.

AHR 1122 Fundamentals of Refrigeration: Commercial

5-12-9

Commercial refrigeration installation and servicing of display cabinets, walk in coolers and freezer units and mobile refrigeration systems are studied. The use of catalogues are used to calculate heat loads, sizing, and matching system components and a study of circuits and controls, refrigerants, oils, and methods are made. The American Standard Safety Code for refrigeration is studied and its principles practiced.

AHR 1123 Principles of Air Conditioning

4-3-5

An introduction to the principles of air conditioning, the use and care of tools and equipment and the identification and function of the component parts of a system. Practical work includes leak detecting with various leak detecting devices. Making electrical checks on Hermetic Compressors. Disassembling and reassembling air conditioning equipment. Standard procedures and safety measures are stressed in the use of air conditioning equipment and the handling of refrigerants.

AHR 1124 Principles of Heating: Fuels and Burners 5-9-8

Fuels and burners used in supplying heat for various types of heating systems — coal, oil, natural gas, manufactured gas, liquefied petroleum gas, and electricity. Experiments in equipment selection, installation, adjustments, and servicing will be conducted. Warm air systems, heat emitter, electric heating, forced hot water and steam heating systems, including selection and sizing of equipment — registers, grills, furnaces, boilers, radiators, baseboards, piping, and ducts. Heating layout and specifications for an existing structure or one in blueprint stage will be prepared.

AHR 1126 All-year Comfort Systems and AC Servicing 4-9-7

Auxiliary equipment used in conjunction with refrigeration system to provide both heating and cooling for "all year" comfort will be studied and set up in the laboratory. Included will be oil fired systems, gas fired systems, water circulating systems and electric-resistance systems. Installation of heat pumps will be studied along with servicing techniques. Reversing valves, special types of thermostatic expansion valves, systems of de-icing coils, and electric wiring and controls are included in the study.

AHR 1127 Duct Construction & Maintenance 3-3-4

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

ANTHROPOLOGY

ANT 0160 Celtic Culture 2-0-2

This course will study the culture of the Celts, their origin, and their impact upon humanity at large. We will emphasize all facets of the celtic world from religion to music culminating the course with an excursion to a Scottish-Irish gathering appropriate to our localized area. (5U)

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, 5U)

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,5U)

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. (5P)

ANT 0263 Archaeological Methodology 1-3-2

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, 5P)

ART

*Denotes required courses for AFA degree. **Two of these three must be taken.

- *ART 0101 Fundamentals of Two-Dimensional Design** 2-4-4
Exploration of basic studio problems in the visual arts through a variety of art media with emphasis on the elements and principles of art as they relate to two-dimensional space. (F)
- *ART 0102 Fundamentals of Three-Dimensional Design** 2-4-4
Study and application of the elements and principles of art as they relate to three-dimensional space. (W)
- *ART 0103 Drawing and Composition I** 2-4-4
Introduction to and exploration of the drawing process through improvisational, perceptual, and conceptual experiences. Emphasis on the structural elements and organizational principles of art as they relate to the drawing process. (SP)
- *ART 0104 Ancient and Medieval Art History** 3-0-3
A study of prehistoric art, Egyptian art, Middle Eastern art, Greek, Etruscan, Roman, early Christian and Byzantine, and Medieval art, with emphasis on styles, media, methods, purposes and accomplishments. (F)
- *ART 0105 Renaissance Art History** 3-0-3
Survey of Western art from the Romanesque through the Baroque periods with emphasis on the art of the Renaissance in Italy and northern Europe. (W)
- *ART 0106 History of Modern Art** 3-0-3
Study of nineteenth and twentieth-century art. (SP)
- ART 0160 Survey of Art** 3-0-3
Introduction to principles of art, including media, style, technique. Emphasis on Egyptian, Greek, Roman, Byzantine, Medieval, Renaissance, Baroque, Neo-Classical, Romantic, Impressionistic and Modern art. (May not be taken as an AFA degree professional art course.) (F,SP)
- ART 0161 Art in the Elementary School** 2-4-4
Development of a sensory awareness/conceptual teaching approach to exploring art with children. Perceptual growth of the child, aesthetic content in art, concepts from art elements and principles, and art media will be studied in relation to the elementary classroom. (May not be taken as an AFA degree professional art course.) (On demand)
- *ART 0201 Drawing and Composition II** 2-4-4
Confrontation of the figure, landscape, and still life through a variety of drawing concepts and media. Prerequisite: ART 0101 or ART 0103. (F)
- *ART 0202 Painting I** 1-4-3
Introduction to the painting experience through exploration of various painting media. (W)
- *ART 0203 Printmaking** 1-4-3
Introduction to the printmaking process through exploration of various printmaking techniques. Prerequisite: ART 0101 or ART 0103. (SP)
- **ART 0204 Introduction to Sculpture** 1-4-3
Exploration of three-dimensional form through the application of diverse sculpture media. Prerequisite: ART 0102. (F)

- **ART 0205 Constructive Design: Clay** 1-4-3
Exploration of clay as a sculptural medium. Prerequisite: ART 0102. (W)
- **ART 0206 Life Drawing** 1-4-3
Study of the human form by drawing from the model in various media. (SP)
- ART 0207 Painting II** 1-4-3
Development of original work in various painting media through an individual problem-solving approach. Prerequisites: ART 0101, 0103 or 0202. (SP)
- ART 0208 Presentation Techniques for the Visual Artist** 0-2-1
Development of basic skills related to visual art presentation; framing, matting, portfolio presentation, etc. (F,SU)
- ART 0209 Painting III** 1-4-3
Further involvement with the painting process. Emphasis on individual exploration, technical understanding, and compositional resolutions. Prerequisite: Art 0207 (W, SP)
- ART 0250 Selected Topics in Art** 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 art topics which may be offered under this description. (On demand)

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. (SU)
- AUB 111B Auto Body Problems I** 1-6-3
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** 5-3-6
 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** 4-6-6
 Techniques of metal shrinking will be studied. The student will be given ample opportunity to develop these techniques.
- AUB 1121 Auto Body Problems IV** 4-9-7
 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** 4-6-6
 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** 3-4-5
 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 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 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)

Anatomy and physiology is an introductory course planned to serve students of liberal arts, biology, nursing, and health related programs. The laboratory emphasizes anatomical identification, but does not exclude practical work in physical functions. The physiology of structure is emphasized in lecture. General coverage of the whole spectrum of the human body is given.

BIO 0270 Anatomy and Physiology I 3-3-4
The first quarter considers basic chemistry, cells and tissues with a strong emphasis on the structure and physiology of the skeletal and muscular systems. The nervous system is introduced by covering nerve cell structure. (SU)

BIO 0271 Anatomy and Physiology II 3-3-4
This quarter covers the nervous system's organization along with the structure and physiology of the sense organs. The endocrine system, blood and cardiovascular physiology is also covered. Emphasis is given to the nervous system's organization and the cardiovascular system. (SU)

BIO 0272 Anatomy and Physiology III 3-3-4
The final quarter deals with the respiratory, digestive and urogenital systems. Emphasis is placed on metabolism, excretion, fluid and electrolyte balance. (SU)

BIO 0280, 0281 Microbiology 2-3-3 (each)
A general introduction to the morphology, physiology and pathogenicity of viruses, bacteria, algae, fungi and protozoa. The fundamentals of laboratory techniques concerning isolation, reproduction, metabolism and taxonomy are included. Prerequisite: Biology 0101 or 0270; Prerequisite for BIO 0281 is BIO 0280 (SU)

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: BUS 0239. (W, SU)
- BUS 0108 Filing** 3-0-3
 A course designed to teach the principles of filing and records management. The five methods of organizing records—alphabetic, geographic, subject, numeric, and chronological will be covered. (F, W, SP, SU)
- BUS 0109 Terminology & Transcription** 3-0-3
 A course designed to build transcription and vocabulary skills. Course offers study of language skills in the area of word choice, spelling, capitalization, and punctuation. Prerequisite: None. (F, 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 0120 Construction Materials and Methods** 3-0-3
 This course is designed for the student enrolled in the Real Estate Curriculum. The fundamentals of construction according to the type and quality of construction in buildings are given adequate consideration in both the classroom and at construction

sites. An understanding of the materials used, design, and site location are required of each student. Terminology used in construction, materials, and methods must be demonstrated by the student in order to complete this course.

BUS 0121 Math of Real Estate 3-0-3

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 0122 Real Estate Brokerage 3-0-3

This course covers the organization and conduct of real estate brokerage, business and professional activities; social, economic, legal licensing and ethical responsibilities of the real estate broker.

BUS 0123 Real Estate Merchandising 3-0-3

A study of the current sales techniques in the real estate industry, including problems in selling as well as emphasis on consumer motivation and reactions. Particular emphasis is placed on morals and ethics related to the sale of real property. Other topics include the methods of securing property listings and prospective customers, bringing the prospect and property together, the use of advertising in the selling function, the basic development of a sales plan and sales presentation.

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 0140 Materials Handling 3-0-3

An introductory course involving the basic procurement and handling of materials in our modern business world. Included are the purchasing, receiving and warehousing functions prior to processing. The packaging of the finished product, inventory control, and warehousing prior to shipping are studied as well as the mode of transportation, carrier selection, the necessary shipping paper preparation, and loading procedures.

BUS 0141 Marketing Transportation 3-0-3

A survey course for business students to present an overview of basic domestic transportation. Basic transportation principles involving economics of the various modes, day-to-day involvement of the movement of our goods from producer to consumer and the government control of our transportation system.

BUS 0142 Transportation and Traffic Management 3-0-3

An introduction to the nation's transportation system including buying and selling of the various transportation services and the economics of the company owned transportation equipment. The distinguishing features between intrastate and interstate transportation are also discussed.

BUS 0143 Transportation and Traffic Management II 3-0-3

A continuation of BUS 0142 with emphasis being placed on transportation classification ratings, rates and charges. Weighing and inspection bureaus, shippers right to route, freight embargos, reconsignment and diversion, establishment of commodity and milling-in-transit rates and privileges are also discussed. Prerequisite: BUS 0142.

- BUS 0144 Carrier Rates I** 3-0-3
An introduction to the analysis of current transportation traffic classifications, rates and applicable charges for common carrier services within and between the various freight territories in the United States.
- BUS 0145 Carrier Rates II** 3-0-3
A continuation of Carrier Rates I. Prerequisite: BUS 0144.
- BUS 0146 Carrier Rates III** 3-0-3
A continuation of Carrier Rates II with emphasis on other rate publishing bureaus, including commodities such as furniture and household goods. Prerequisite: BUS 0145.
- BUS 0190 Word Processing Concepts** 3-0-3
This course is an overview of all aspects of word and information processing, including concepts, equipment and procedures. It integrates management techniques and procedures with operative and administrative procedures necessary to function in a word processing environment.
- BUS 0200 Word Processing Applications** 2-3-3
This course is designed to teach the student to efficiently operate a word processor. Emphasis is placed on using a menu, creating and storing documents, making changes and corrections on documents, and retrieval and printing of documents. Prerequisite: BUS 0102.
- BUS 0201 Word Processing Files** 2-3-3
This course is intended to teach the Files Processing function of a word processing system starting with basic concepts and going to the full capabilities of the system. Prerequisite: BUS 0200.
- BUS 0202 Dictation and Transcription** 3-2-4
Develops the skills of taking dictation and a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 70 words per minute required for three minutes on new material. Prerequisite: BUS 0106. (F, W, SP, SU)
- BUS 0203 Dictation and Transcription** 3-2-4
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 80 words per minute is required for three minutes on new material. Prerequisite: BUS 0202. (F, W, SP, SU)
- BUS 0205 Machine Transcription** 3-2-3
Course offers the opportunity for student to acquire employable skills in transcribing various forms of dictated material. Emphasis is placed on proficiency in using the dictaphone, word usage, correct grammar, letter styles, and general neatness. Prerequisite: BUS 0206 and BUS 103 or the ability to type 50 w.p.m. with no more than 5 errors. (F, W, SP, SU)
- BUS 0207 Medical Terminology** 3-2-3
A course designed to teach you general medical terms and medical terms associated with the major body organ systems taught in the context of medical usage, the word parts that form the terms, and a system of building medical terms from the word parts. (F, W, SP, SU)

- BUS 0208 Stenoscrypt I** 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 II** 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. (5P)
- BUS 0210 Principles of Accounting** 3-2-4
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** 3-2-4
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** 3-2-4
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. (5P)
- BUS 0213 Secretarial Procedures** 3-2-4
A course designed to acquaint student with the responsibilities encountered by a secretary during the day. These duties include receptionist duties, mail handling, telephone technique, travel information, telegrams, office records, supplies purchasing, office organization, and time management. Prerequisite: BUS 0103. (F, W, 5P, SU)
- 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. (5P)
- 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. (5P)
- 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. (5P)
- 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 Terminology** 3-2-3
 Student learns legal terminology and procedures related transactions. General legal terminology and specialized terms and phrases are covered. Student also acquires a knowledge of the structure of the American Court System. Prerequisite: None. (F, W, SP, SU)
- BUS 0220 Marketing** 3-2-4
 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, renumeration, 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 Fundamentals I** 3-0-3
 A study of brokerage, fair housing, contracts, property ownership and interests, leases, and transfer of title. Meets partial requirements for North Carolina Sales or Brokerage examination.
- BUS 0229 Real Estate Fundamentals II** 3-0-3
 A study of financing, closing transactions, property management, building construction, property valuation, land use controls, and taxation. Meets partial requirements for North Carolina Sales or Brokerage examination.
- BUS 0230 Real Estate Fundamentals I and II** 6-0-6
 A study of brokerage, fair housing, contracts, property ownership and interests, leases, and transfer of title, financing, closing transactions, property management, building construction, property valuation, land use controls, and taxation. Meets North Carolina Realtors requirement for Sales examination and partial requirement for Brokerage examination.

- BUS 0231 Real Estate Finance and Investment** 3-0-3
A study of financing instruments and financial intermediaries, government insurance, guarantees, and controls, and the processing of loans. Borrowing for the purpose of investing in income properties and investment techniques and feasibility studies is also included.
- BUS 0233 Real Estate Appraisal** 6-0-6
An introduction to the field of appraisal, including the nature of real property and value, economic trends, residential, commercial and industrial property values, along with valuation methods.
- BUS 0235 Property Management** 3-0-3
A study of the nature of property management, the types of property, lease preparation, protection of property and property maintenance. Other topics include fair housing, tenant selection, advertising, ethics, budgeting, and associations with people.
- 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 0238 Real Estate Law** 3-0-3
A comprehensive study of real property law as it relates to land, types of estates, easements, appurtenances, leases, types of tenancies, wills and deeds.
- BUS 0239 Business Mathematics I** 3-2-4
This course is designed to provide business students with practical mathematical competencies applicable to business while learning the use of the electronic calculator. Topics will include percentage, trade and cash discounts, mark-up and mark-down. Prerequisite: Satisfactory placement test score in arithmetic or DSM 100. (F, W, SP, SU)
- BUS 0240 Business Mathematics II** 3-2-4
This course is a further study of business related mathematical problems using the electronic calculator. Topics will include inventories, depreciation, simple and compound interest, and annuities. Prerequisite: Satisfactory completion of BUS 0239. (F, W, SP, SU)
- BUS 0242 Real Estate Investments and Taxation** 3-0-3
A study of fundamental investment concepts including location, timing and methods of financing, designed to provide the prospective investor with a guide to successful real estate investment. Other topics to be discussed are how to invest in real estate corporations and trusts, tax consequences and investment, and the influence of federal and state laws on real estate investment.
- 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, 5P)

BUS 0251 Estate Planning 3-0-3

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 0254 Motor Carrier Management 3-0-3

An introduction to the management practices, policies, and problems in the motor carrier industry. Prerequisites: BUS 0142, 0143.

BUS 0255 Transportation Regulations 3-0-3

Analysis of the legal basis for the economic regulations of transportation under the Interstate Commerce Act and related statutes. General procedures and practices before regulatory agencies seeking appropriate damages and remedies. Prerequisites: BUS 0142, 0143.

BUS 0256 Government Regulations and Safety 3-0-3

A survey course covering federal and state Department of Transportation safety and licensing regulations including highway-user taxes. A study of OSHA as it relates to the transportation industry will also be included.

BUS 0257 Physical Distribution Management 3-0-3

A survey course pointing out the methods of in-plant materials handling, warehousing, packaging, inventory control and the economics of distribution point locations combined with the problems of the physical distribution manager. Prerequisite: BUS 0143.

BUS 0258 Freight Loss and Damage Claims I 3-0-3

An in-depth study of the rights and liabilities of carriers, consignors, and consignees; including the procedures for filing loss and damage claims through the actual case study of various damage suits in our judicial system.

BUS 0259 Freight Loss and Damage Claims II 3-0-3

A continuation of Freight Loss and Damage Claims I. Prerequisite: BUS 0258.

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. (5P)

- BUS 0264 Office Application** 2-0-3
 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 0268 Principles of Risk Management and Insurance** 3-0-3
 Covers risk management, general principles of insurance, economic security, individual life insurance, health insurance, social insurance, property insurance and liability insurance.
- BUS 0269 Life and Health Insurance** 3-0-3
 Provides a comprehensive examination of life and health insurance including economic security, group and individual coverages, life insurance law, mathematics of life insurance, social insurance, pension planning, business insurance and estate planning.
- 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 0272 Introduction to Insurance** 2-0-2
 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** 2-0-2
 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** 2-0-2
 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 0275 Property and Liability Insurance** 3-0-3
 Provides a comprehensive examination of property and liability insurance including personal and commercial property and commercial liability risk management and insurance; the legal environment of property and liability insurance; and property and liability insurance function, practices and uses. Prerequisite: BUS 0268 or instructor's permission.

- BUS 0276 Insurance in Business and Estate Planning** 3-0-3
 Covers the orderly and efficient disposition of personal and commercial interests in property, including business insurance and the taxation of estates, gifts and trusts. Prerequisite: BUS 0269.
- BUS 0277 Employee Benefit Plans** 3-0-3
 Covers the contemporary legal environment of employee benefit plans, statutory and regulatory aspects of pensions, Employee Retirement Income Security Act of 1974, Tax Reform Act of 1976, pension fundamentals, retirement systems for public employees, social security, savings plans, tax deferred annuities, executive compensation, group insurance, and plan administration. Prerequisite: BUS 0269.
- BUS 0278 Property and Liability Insurance Operation** 3-0-3
 Examines property and liability insurer functions and activities including marketing, underwriting, reinsurance, rate making, claims adjusting, loss control activities, regulation, reserves, investments, management, and types of carriers. Prerequisite: BUS 0275.
- BUS 0279 Risk and Loss Control Management** 3-0-3
 Covers the concepts and application of personal and commercial risk and loss control management including the structure of the risk management process, risk control, risk financing, hazard identification and analysis, safety management, insurance, and case studies. Prerequisite: BUS 0275 or instructor's permission.
- BUS 0280 Human Relations** 1-0-1
 Human Relations training is a practical way to help supervisors develop skill in getting results through the personnel they supervise.
- BUS 0281 Financial Services: Environment and Professions** 3-1-4
 This introductory course sets the stage for the CLU and Chartered Financial Consultant programs by providing an overview of the environment in which financial services professionals assist clients in meeting their financial counseling and planning needs.
- BUS 0290 Medical Transcription** 3-2-3
 A course in which the student transcribes from cassette dictation medical reports, letters, etc., dealing with the various branches of medicine. Prerequisite: BUS 0207. (F, W, SP, SU)
- BUS 0291 Legal Transcription** 3-2-3
 Student acquires employable skills in transcribing cassette dictation of legal instruments and documents. Prerequisites: BUS 0102, BUS 0219 and BUS 0206. (F, W, SP, SU)
- 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)

CAREER PLANNING

- EDU 0161 Career Decision Making and Life Planning** 3-0-3
 This course will provide a structure for students to assess their work related interests, values, and aptitudes and teach them useful decision-making skills for the purpose of developing realistic career plans. Students move through four phases: self-assessment, occupational exploration, career decision making, and goal planning. The course

encourages students to take charge of their lives by learning the skills of self-assessment, alternative development/appraisal and decision-making all of which will assist them throughout their life. (F, W, SP, SU)

EDU 0162 Job Seeking Skills

1-0-1

Students first will identify their best and most enjoyed skills, aptitude-related natural talents, and discover the kinds of careers for which they are best suited. Then, they will learn how to develop a job qualifications brief (resume), an effective job search strategy, and effective interviewing skills. (F, W, SP, SU)

CARPENTRY

CAR 1011, 1012 Carpentry I and II

2-6-4 each

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 the Allied Health 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.

CHM 0220 Organic Chemistry I

4-5-6

A study of the properties and reactions of aliphatic and aromatic hydrocarbon compounds with emphasis on mechanisms and structural influences. Laboratory exercises will deal with extraction/purification and synthesis. Prerequisite: 1 year of General Chemistry. (SU, Upon request)

CHM 0221 Organic Chemistry II

4-5-6

Deals with the major functional group compounds, their synthesis and reactions. Laboratory will consider major reaction types. Prerequisite: CHM 0220. (SU, Upon request)

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 6-30-10

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 6-0-6

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 9-21-7

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 6-30-10

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, Hairdress-

ing and Wigs, Manicuring and Pedicuring, Skin and Scalp Disorders, Hair Coloring, and Hair Cutting.

COS 1033 Clinical Application 0-30-10

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 0-30-10

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 0-30-10

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 6-0-6

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 6-0-6

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 6-0-6

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 6-0-6

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 0-21-7

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 0-21-7

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 0-21-7

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 0-21-7

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** 0-21-7
A continued laboratory practice in relation to Chemistry, safety measures, and speed and efficiency in Hair Styling.
- COS 2077 Clinical Application** 0-21-7
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** 4-0-4
An advanced study of Scientific principles and cosmetic application as presented in COS 2101-2105.
- COS 2110 The New You** 1-0-1
This course is an evaluation of personal attributes and liabilities. A study of skin type and skin problems, enabling students to determine individual care that should be used to achieve and maintain a healthy, glowing complexion. Equal attention is given to application of glamour products to enhance natural beauty and camouflage imperfections. Supportive emphasis throughout the course is placed on the relationship between self-confidence and personal appearance.

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.

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.

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.

COMPUTER SCIENCE

CPS 0101 Computer Concepts 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 detailed study of particular computer problems and programming courses. (F)

CPS 0102 Introduction to Computer Programming 3-2-4

This study includes computer solutions of numerical and non-numerical problems using the BASIC (Beginners All-purpose Symbolic Instruction Code) programming language with emphasis on programming concepts; program logic; flowcharting; writing, debugging, and verification of programs; and data representation. Assignments include programs containing calculations, print editing, predetermined loops, and one-dimensional arrays. The student must sign up for a microcomputer lab. Prerequisite: CPS 0101. (W)

CPS 0103 Advanced Programming Concepts 3-2-3

This study includes advanced programming techniques and operations. Topics include tables, arrays, defined functions, sequential and direct access files, and BASIC on the

IBM 5/36 computer. The student is expected to develop good programming habits by writing a variety of non-numerical application programs. Prerequisite: CPS 0102. (SP)

CPS 0201 Introduction to Data Structures 3-2-3

Basic concepts of data structures such as queues, stacks, and lists. This course includes the study of algorithms for the manipulation of data structures, the implementation of these algorithms in existing programming languages, and applications such as storage allocation and garbage collection. Prerequisite: CPS 0103. (F)

CPS 0202 Assembly Language Programming 3-2-3

This course is designed to provide the student with an introduction to and an appreciation of concepts elemental to programming of the Z80 and 6800 microprocessors and CPU's in general through assembly language. These concepts include binary, octal, and hexadecimal math and operations, microprocessor architecture and function, operation codes, memory addressing techniques and input/output techniques. Prerequisite: CPS 0103. (W)

CPS 0203 Concepts and Facilities of Operating Systems 3-2-3

This course covers the history of operating systems, basic macro concepts, program management services, interrupt handling, memory addressing and allocation, input/output devices, data set characteristics and identification, data set access techniques, error handling, processing of data sets, space allocation for data sets, data set control and disposition and the basic characteristics and use of time sharing facilities. Prerequisite: CPS 0202. (SP)

CPS 0210 COBOL Programming 3-2-3

The COmmon Business Oriented Language (COBOL) is presented in detail, including structured programming concepts, report writing, editing, calculations and comparisons, if-then-else structures, nested if-then-else structures, control breaks, and multiple control breaks. A variety of business and commercial applications are programmed and tested on the IBM 5/36. Prerequisite: CPS 0102. (W)

CPS 0211 Fortran Programming 3-2-3

The student will learn the fundamental programming rules of the Fortran (FORmula TRANslation) language, and its applications to numerical computation and file manipulation. Emphasis will be placed on developing programming techniques to translate problem statements into workable programs. A variety of business and scientific problems will be programmed and tested on the IBM 5/36 computer or the TR5-80 micro-computer. Prerequisite: CPS 0102. (SP)

DATA PROCESSING

EDP 0101 Computer Concepts 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 programming courses.

EDP 0103 Data Entry 3-2-3

This course is designed to provide the student with knowledge of data entry terminology and skill in punched card, key-to-diskette, and on-line data entry. Equipment used includes IBM 3742, IBM 129, IBM 5/36, and Radio Shack TR5-80. Prerequisite: BUS 0101 or equivalent.

- EDP 0156 Computers For Home Use** 1-2-2
 This class will deal with mini- and microcomputers as they relate to home use. Topics of discussion will include packaged programs for personal finance, budget management and mailing lists. Also included will be discussion of the computer as a teaching device for family members. BASIC programming will be introduced.
- EDP 0160 Microcomputer Operations** 2-2-2
 This course is designed to provide the student with operational skills needed to operate the keyboard, cassette-recorder, printer, disk drives, and the running of software packages. In addition, JCL (Job Control Languages), DOS (Disk Operating Systems) and differences in systems will be introduced. Practical applications will be performed on the IBM Personal Computer and the Radio Shack Model III and IV. Prerequisite: BUS 0101 or permission from the instructor.
- EDP 0200 Computer Operations** 3-2-4
 This course is designed to familiarize the student with the characteristics of an operating system. The student will study use of the console, work station, source entry and data file utilities for entry and update, and installation of a computer system. Practical application problems will be performed on the IBM S/36. Prerequisite: EDP 0101 or equivalent.
- EDP 0201 Advanced Computer Operations** 3-2-4
 This course is designed to provide the student with skill in the use of OCL (Operation Control Language), Procedures, Sort Utility for various types of sorting, and the Data File Utility for creating, updating, and listing data files with and without calculations. The considerations dealt with when installing, configuring, and modifying a system will also be included. Practical applications will be performed on the IBM S/36. Prerequisite: EDP 0200.
- EDP 0204 Computer Operations for Management** 3-2-4
 This course is designed to provide the manager/supervisor with operational skills necessary to use a computer terminal and a microcomputer to process software packages. Additional topics will include management aides and reprint interpretation. Prerequisite: EDP 0101 or equivalent.
- EDP 0210 BASIC Programming** 3-2-4
 The student will study the BASIC (Beginners All-purpose Symbolic Instruction Code) programming language with emphasis on programming concepts, program logic, flow-charting, and writing and debugging programs. Assignments include programs containing calculations, print editing, predetermined loops, and one-dimensional arrays. Prerequisite: EDP 0141 or may be taken simultaneously.
- EDP 0211 Advanced BASIC Programming** 3-2-4
 This study includes advanced programming techniques and operations. Topics include tables, arrays, defined functions, sequential and direct access files, and BASIC on the IBM S/36 computer. Prerequisite: EDP 0210.
- EDP 0220 RPG II Programming** 3-2-4
 This course is a study of the RPG II (Report Program Generator) programming language. Emphasis will be placed on the study of RPG II Fixed Logic, editing, calculations, control breaks, multiple control breaks, multiple record types, and the writing and debugging of business-related programs. Prerequisite: EDP 0101, or permission of the instructor.
- EDP 0221 Advanced RPG II Programming** 3-2-4
 The student will study advanced RPG II programming techniques, including tables, matching records, sequential and indexed sequential files. Applications will include the writing and debugging of complex business-related programs. Prerequisite: EDP 0220.

- EDP 0225 Assembly Language Programming** 3-2-4
 This course is designed to provide the student with an introduction to and an appreciation of concepts elemental to programming of the Z80 and 6808 microprocessors and CPU's in general through assembly language. These concepts include binary, octal, and hexadecimal math and operations, microprocessor architecture and function, operation codes, memory addressing techniques and input/output techniques. Prerequisite: EDP 0211.
- EDP 0230 COBOL Programming** 3-2-4
 The COmmon Business Oriented Language (COBOL) is presented in detail, including structured programming concepts, report writing, editing, calculations and comparisons, if-then-else structures, nested if-then-else structures, control breaks, and multiple control breaks. A variety of business and commercial applications are programmed and tested by the students on the IBM 5/36. Prerequisites: EDP 0101 and EDP 0220. (W)
- EDP 0231 Advanced COBOL Programming** 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 complex programs. Topics include the study of tables, edit programs, sorting within a program and file handling. Prerequisite: EDP 0230. (5P)
- EDP 0235 FORTRAN Programming** 3-2-4
 The student will learn the fundamental programming rules of the FORTRAN (FORMula TRANslation) language. Emphasis will be placed on developing programming techniques to translate problem statements into workable programs. A variety of business and scientific problems will be programmed and tested on the IBM 5/36 Computer or the TRS-80 Microcomputer.
- EDP 0240 Systems Analysis** 3-2-4
 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. Phases include Investigation, File Design and Hardware/Software Selection, System Development, and Followup. Prerequisites: EDP 0210 or EDP 0220. (F)
- EDP 0242 Computerized Accounting** 3-2-4
 This course is designed to provide the student with the operational skills needed to implement and use Accounts Receivable, Accounts Payable, Payroll, and General Ledger software packages for accounting in a business. Prerequisites: EDP 0141 and BUS 0211. BUS 0211 may be taken simultaneously with this course.
- EDP 0250 Data Processing Projects** 3-2-4
 Individual assignment of a carefully selected project 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 0240 and EDP 0211 or EDP 0221.
- EDP 0252 Database Processing** 3-2-4
 This course is designed to provide the student with a working knowledge of database systems. The student will study database fundamentals, file structures, and techniques of file handling. In addition, sequential and random access files will be reviewed. Database applications will be tested on the TRS-80 or the IBM PC.
- EDP 0258 Data Entry/Computer Operations Internship** 2-8-4
 This course is designed to provide the student with practical work experience in the area of Data Entry or Computer Operations. Class meetings will provide the student

with an opportunity to discuss successes and/or failures that occur during the work experience. Discussions will also include methods of improving skills, and opportunities for advancement. Prerequisites: EDP 0103, EDP 0141, EDP 0200, and permission of instructor.

EDP 0260 Data Processing Internship I 2-8-4
Study of work needs and on the job experience for a practical application of skills and knowledge previously learned. Work experience is permitted in the following areas: programming, systems analysis, computer operations, and data entry. Prerequisite: Permission of instructor.

EDP 0261 Data Processing Internship II 2-8-4
Continued on the job experience as related to electronic data processing with group study of work needs. Prerequisite: Permission of instructor.

EDP 0270 Robotics/Automation Concepts 3-1-3
This course is designed to acquaint the student with robotics and automation. Emphasis will be placed on business and industry applications. Practical applications will be provided with the use of an educational robot. Prerequisite: EDP 0101 or permission from the instructor.

DEVELOPMENTAL STUDIES

DSE 0100, DSM 0100, 0101, DSR 0100 cannot be taken for credit if a more advanced course in a respective area has been satisfactorily completed.

DSE 0100 Advancement English 5-0-3
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)

DSE 0106 Spelling Improvement 3-0-2
This audio-tutorial program of Educulture is a practical, see, hear, and write approach to spelling words of a basic, everyday vocabulary. It's emphasis is on the world of words; its method is based on programmed learning techniques assisted by audio coaching. The goal of the program is to make the student aware of and able to use the sounds and patterns by which our English words are spelled. Students proceed through the program at their own pace. (W, SP)

DSE 0107 Vocabulary Improvement 3-0-2
This course is designed to be a practical teaching/learning tool combining individualized study and classroom participation. It provides fundamental vocabulary skills for any student who needs to read, study, interpret, and communicate. Vocabulary is built in sequential steps through the use of rudimentary prefixes, roots, suffixes—Anglo-Saxon, Latin, and Greek. The objective of this course is to help a student build a foundation for successful communication skills. (SP)

DSM 0100 Basic Math I 5-0-3
This is a course designed to provide a strong background in the fundamental arithmetic skills 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, ratio, proportion, and applications of these skills are also covered. (F, W, SP, SU)

DSM 0101 Basic Math II

5-0-3

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 DSM 0100 or BUS 0239 may not take DSM 0101 for credit. Prerequisite: DSM 0100 or satisfactory placement test scores. (F, W, SP, SU)

DSR 0100 Reading Proficiency

5-0-3

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, SP, SU)

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.

DISTRIBUTIVE MARKETING**DMK 0245 Fashion Merchandising**

3-2-4

Designed to acquaint the student with fashion and style, characteristics of style, trends, of color and design analysis. Prerequisite: None.

DMK 0249 Buying and Merchandising

3-2-4

A course dealing with the changes of opportunities apparent in retailing today. Many aspects of the business recession of the early 70's including inflation, curtailed buying by consumers, and uncertainty in fashion are discussed. Also emphasized are the new techniques and managerial measures required for successful retail operation in today's business environment. Prerequisite: None.

DMK 0260 Commercial Display and Design

3-2-4

Internal—An introduction to basic layout and design and commercial displays, retail store, and service institutions. Prerequisite: None.

DMK 0265 Fashion in Retailing

3-2-4

A course designed to meet the needs of virtually all students in the field of Marketing and Retailing whether they intend to gain a career in Fashion Merchandising or not. The principles of concepts involved in the field of fashion merchandising are presented in such a manner as to provide the student with the skills needed to fulfill their job

requirements. The course covers the history and movement of fashion apparel and accessories, fashion buying and planning, and fashion promotion and coordination. Prerequisite: BUS 0249.

DRAFTING

- DFT 0107 Surveying and Mapping** 2-3-3
A general overview of surveying will be presented. How to locate information about property will be discussed. How to read deeds and lay-out property on paper will be presented. Demonstration of surveying equipment and an actual survey will be done by the class.
- DFT 0203 Architectural Drafting** 0-6-3
Complete set of working drawings, plot plan, floor plan, elevations, wall sections, details, electrical plan, plumbing, foundation, dimensioning practice, symbols and materials schedule. Prerequisite: EGR 0103.
- DFT 0205 Design Drafting** 3-4-5
Charts and graphs, design layouts and working drawings of gears, gear train drives, belt and pulley drives, and chain and sprocket drives. Prerequisite: EGR 0103.
- DFT 0206 Design Drafting II** 3-6-5
Assignment of mechanical design requiring use of research; application of basic engineering principles, calculations, and use of various manuals, catalogues, and periodicals. Preliminary design sketches layout drawings, detail drawings, sub-assembly drawings, assembly drawings specifications, patent drawings and simplified drawing practices will be required. Prerequisite: DFT 0205.
- DFT 0211 Mechanisms** 3-3-4
Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism, layout methods for designing cams, belts, pulleys, gears and gear trains.
- DFT 0212 Jig and Fixture Design** 3-3-4
Commercial standards, principles, practices and tools of jig and fixture design. Individual project and design work to acquaint students with the types of jig and fixtures and their design. Prerequisites: DFT 0205 and DFT 0206.
- DFT 0209 Industrial Systems Schematics** 2-2-3
The student will read and draw schematic representations of water and gas plumbing, hydraulic and pneumatic circuits and electrical circuits. A brief overview of each area will be given to provide the student with a basic knowledge of the physical phenomena associated with each of these energy transport systems.
- 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** 0-2-1
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** 0-3-1
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 1116 Blueprint Reading: Air Conditioning** 0-3-1
Reading of working prints, exploded drawings, wiring schematics, equipment layouts, shop sketches, building codes, heat systems, standards and symbols.
- 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)

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 0204 Free Enterprise Economics** 3-0-3
This course will include a study of basic micro-economics, economic principles and legislation that affects the natural levels of unemployment, income and prices.

- 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)
- ECO 0262 Transportation Economics** 3-0-3
The transportation student becomes acquainted with the economic aspects of transportation in our United States. Discussion begins with the earliest forms of transportation in a young struggling nation and progresses to regulations of the various modes in a complex industrialized nation's transportation system. Considerations are also given to the economic factors considered in manufacturing plant locations and principles involved in our present-day transportation system.

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 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 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 0161 Career Decision Making and Life Planning** 3-0-3
This course will provide a structure for students to assess their work related interests, values, and aptitudes and teach them useful decision-making skills for the purpose of developing realistic career plans. Students most through four phases: self-assessment, occupational exploration, career decision making, and goal planning. The course encourages students to take charge of their lives by learning the skills of self-assessment, alternative development/appraisal and decision-making all of which will assist them throughout their life. (F, W, SP, SU)
- EDU 0162 Job Seeking Skills** 1-0-1
Students first will identify their best and most enjoyed skills, aptitude-related natural talents, and discover the kinds of careers for which they are best suited. Then, they will learn how to develop a job qualifications brief (resume), an effective job search strategy, and effective interviewing skills. (F, W, SP, S)
- 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 and Music for Children** 3-0-3
The student will have the opportunity to work in a variety of art and music 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 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. (S)
- 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 0240/0242/0244 Practicum** 0-15-5
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 0241/0243/0245 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)

ELECTRICAL INSTALLATION AND MAINTENANCE

- ELC 0101 Electrical Fundamentals I** 5-3-6
An introduction to the theory of circuit analysis. Equilibrium equations for direct-current circuits with resistance and methods for their solution. Special emphasis on inductance, capacitance, and electrical measuring instruments.
- ELC 0102 Electrical Fundamentals II** 5-3-6
Elementary A-C circuits; effective and average values of current and emf, instantaneous and average power. Complex algebra, analysis of R-L, R-C, R-L-C series and parallel circuits; complex power; A-C instruments.
- 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 Fundamentals of Electricity** 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 courses 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** 4-3-5
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 0101 Electronics I** 3-3-4
A brief discussion of semiconductor physics, intrinsic and extrinsic semiconductors, photocells, thermistors, junction diodes, diode applications. Introduction to transistors, characteristic curves, biasing, and the common base amplifier.
- ELN 0102 Electronics II** 5-3-6
The common emitter circuit, graphical analysis, D-C and A-C load lines, stability biasing, the hybrid equivalent circuit, introduction to the FET.
- ELN 0103 Electronics III** 5-3-6
Biasing and small signal analysis of FET's, cascade amplifiers, the decibel, frequency response considerations, large signal amplifiers.
- ELN 0201 Pulse and Switching Circuits** 3-3-4
A study of basic pulse definitions, compensated voltage dividers, transient response of R-L and R-C circuits, the diode as a switching device clipping and clamping circuits, and the concept of the transistor as a switching device. Circuits for generating nonsinusoidal waveforms are studied.
- ELN 0202 Digital Fundamentals** 5-3-6
Study of the basic flip-flops, counters, gating, circuits, and amplifiers used in the modern digital computer. The binary number system, binary arithmetic, and Boolean algebra are emphasized. Introduction to microprocessors.
- ELN 0203 Integrated Circuit Theory** 3-3-6
A study of the electrical aspects of digital IC's, linear IC's, differential and operational amplifiers, fabrication of monolithic IC's.

- ELN 0204 Microprocessor Applications** 5-3-6
A study of microprocessor theory, design and application. Emphasis will also be placed on memory circuits, clock, address decoding, data input and data output.
- ELN 0205 Electronics Systems Project** 5-3-6
A class emphasizing independent research and design work by the student. The student will select a project in consultation with the instructor; perform the required research; compile data; formulate a theoretical model; and construct, test, and evaluate a working model of the selected project.
- ELN 0206 Electrical Machines** 5-3-6
A study of the construction, principles, regulation, characteristics, efficiency and application of direct-current motors and generators, and an introduction to the transformers, alternators, and induction motors.
- 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.
- 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** 5-2-6
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 0101 Freshman Composition I 3-0-3
Emphasizes language study (including grammar, mechanics, spelling and vocabulary), writing short compositions, and using the library. Prerequisite: DSE 0100 and/or DSR 0100 or satisfactory scores on placement tests. (F, W, SP, SU)

ENG 0102 Freshman Composition II 3-0-3
Emphasizes writing longer compositions, studying language structure, and critical reading. Prerequisite: ENG 0101. (W, SP, SU)

ENG 0103 Freshman Composition III 3-0-3
Introduction to the research paper and introduction to literature. Following a study of correct research procedures, students write a research paper on a selected topic. The second part of the course is a study of three genres of literature: The short story, poetry, and drama, with selected samples from each genre. 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** 3-0-3
 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 six 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 0201 English Literature I** 3-0-3
 A survey of English literature from *Beowulf* through Boswell with emphasis on representative writers and their works, the English language, and historical events which influenced the writers. Term papers, projects, and reports may be assigned at the discretion of the instructor. Prerequisites: Successful completion of freshman English courses. (F, SP, SU)
- ENG 0202 English Literature II** 3-0-3
 A survey of English literature from the pre-Romantics to the Modern Age with emphasis on representative writers and their works, the English language, and historical events and philosophical movements which influenced the writers. Term papers, book reviews, projects and reports may be assigned at the discretion of the instructor. Prerequisites: Successful completion of freshman English courses. (W, SU)
- ENG 0203 American Literature** 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 I** 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 0262 Creative Writing II** 3-0-3
 Continued guidance and experiment in producing various forms of literary expression—poetry, short fiction, the essay—including the procedures involved in getting-published. Prerequisite: ENG 0260
- 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 tech-

niques, oral interpretation, research for speech planning, recording the voice, using a microphone, analysis of speeches, and participation in group speaking activities.
Prerequisite: ENG 0160.

ENG 0265 Special Topics in Literature variable
The course will deal with timely and/or special interest topics in literature. The credit hours and the quarter in which the course will be offered will vary depending upon the situation.

ENG 0270 Classical Literature 3-0-3
A study of some of the principal authors and literary works of ancient Greece and Rome. In addition to the literary works themselves, various elements of classical literature, such as epic, tragedy, comedy, etc. will be emphasized, along with historical background of the classical period. Prerequisite: ENG 0101, 0102, 0103.

ENG 1100 Communication Skills 2-0-2
Designed to promote the practical application of effective communication in speaking, listening and writing. (F, W, SP)

ENG 1101 Communication Skills 3-0-3
Designed to promote the practical application of effective communication in speaking, listening 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.

EST 1111 Estimating 3-0-3
In this course a study will be made of the various techniques of estimating air conditioning and refrigeration work. Also a study will be made of the various codes pertaining to heating, air conditioning and refrigeration.

FOREIGN LANGUAGES

FRE 0120 Travel French 2-0-2
For the person who wishes to travel in French speaking countries. The part of the language needed to communicate basic needs will be emphasized. (SU)

FRE 0160, 0161, 0162 Fundamentals of French I, II, III 2-3-3 (each)
This is a program of study designed to teach understanding, speaking, reading and writing of French and to grant an awareness of France and its people. Prerequisite: Must be taken in sequence. (F, W, SP)

FRE 0260, 0261, 0262 Intermediate French I, II, III 2-3-3 (each)
In this course of study, the fundamentals of French are used as the background for a basic study of the culture, civilization, and literature of France with a further development of language skills. Prerequisite: Fundamentals of French I, II, III or two years of high school French. (F, W, SP)

- GER 0120 Travel German** 2-0-2
For the person who wishes to travel in German speaking countries. The part of the language needed to communicate basic needs will be emphasized. (SU)
- GER 0160, 0161, 0162 Fundamentals of German I, II, III** 2-3-3 (each)
This is a program of study designed to teach understanding, speaking, reading and writing of German and to grant an awareness of Germany and its people. Prerequisite: Must be taken in sequence. (F, W, SP)
- GRE 0160, 0161, 0162 Fundamental Greek I, II, III** 2-3-3 (each)
This series of courses will give a thorough understanding and grasp of the fundamentals of Koine Greek grammar, also a basic vocabulary with the understanding of the principal parts of speech needed to begin reading the Greek New Testament should be acquired. (F, W, SP respectively)
- LAT 0160, 0161, 0162 Fundamental Latin I, II, III** 2-3-3 (each)
These courses cover the basic Latin grammar with reading selections and consideration given to Roman culture. (F, W, SP respectively)
- SPA 0160, 0161, 0162 Fundamentals of Spanish I, II, III** 2-3-3 (each)
This is a program of study designed to teach understanding, speaking, reading, and writing of Spanish and to grant an awareness of Spain and its people. An audio-visual method is used. Prerequisite: Must be taken in sequence. (F, W, SP)
- SPA 0260, 0261, 0262 Intermediate Spanish I, II, III** 2-3-3 (each)
In this course of study, the fundamentals of Spanish are used as the background for a basic study of the culture, civilization and literature of Spain with a further development of language skills. Prerequisite: Fundamentals of Spanish I, II, III or two years of high school Spanish. (F, W, SP)

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 I** 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 II** 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. (5P)

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 0103 First Aid 3-0-3

A study of accident and emergency situations; causes, prevention, and appropriate first aid treatment. A course of instruction, 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. (W, 5P)

HEA 0104 Basic Life Support 3-0-3

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 cardio-pulmonary resuscitation to maintain life until a victim recovers or advanced life support is available. (F, 5U)

HEA 0112 Personal and Community Health 5-0-5

A study of physical, emotional, mental, and environmental health problems as they relate to man's internal environment and his relationship with the community. Emphasis is placed on current health problems.

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. (5P)

HEA 0202 Human 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, 5U)

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-5U, W-5U, 5P-5U)

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-5U, W-5U, 5P-5U)

HIS 0160 Special Topics 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.

Various areas of study have been offered under this course title. Examples are History via Drama and Southern Afro-Americans Since Reconstruction. These or others will be given as the need or interest develops.

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)

HOR 0105 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 Ironclad, 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)

HOR 0106 Wild Flowers of N. C.**3-0-3**

This course is designed to acquaint the student with the diverse number of herbaceous and woody native plants in North Carolina. Time will be devoted to the identification, propagation, and culture of these plants. Field trips will be taken to assist in this study.

HUMANITIES

The following courses in addition to specific humanities courses can be taken to fulfill the humanities requirements for the A.A., A.F.A., A.C.E., A.S. and A.A.S. degrees. If a specific course is required for a college parallel degree, then it can not be used to satisfy the humanities requirement.

ENG 0201, 0202, 0203, 0260, 0262, 0265, 0270
ART 0104, 0105, 0106, 0160
MUS 0101, 0102, 0103, 0161, 0162, 0201, 0202, 0203
PHI 0260, 0261, 0262
REL 0160, 0161, 0162, 0170

HUM 0160 Introduction to the Humanities 3-0-3
Introduction to the humanities is a course designed to acquaint students with those disciplines which are ordinarily associated with the humanities—art, music, literature, philosophy and religion—but more importantly it is a course designed to explore what makes life good, enriched, ennobled—in short what makes life worth living. It will deal with the “art of being human” and will emphasize an appreciation for human accomplishments in the humanities. (F, W, SP, SU)

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 0100 Safety 1-0-1
Directed at the first line supervisors and management, the course relates accident cost to the production required to pay for the injuries and illness. Special emphasis is placed on worker's compensation, accident prevention, work habits, Occupational Safety and Health Act (OSHA) and methods needed to obtain a desired goal of accident free performance.

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 0121 Industrial Engineering Application** 3-0-3
To give Supervisors, Department Heads, and Staff Managers an appreciation of the value of time study principles and methods engineering in a company, the approaches used, and likely applications.
- ISC 0122 Basic Electricity and Electronics** 3-0-3
Study of relationship between voltage, current and resistance in series parallel and series parallel circuits. A study will be made of semi conductor diodes and transistors. This course will give the student a basic understanding of electricity and electronics.
- 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)
- ISC 0221 Production Planning/Value Analysis** 3-0-3
Modern concept in the control of manufacturing production. Students will have an opportunity to study a production system with the specific purpose of identifying unnecessary costs. Making sound decisions through a common sense approach. Day-to-day plant direction, forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed and actual layouts are utilized for planning and control. (F)

MASONRY

- MAS 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 0101 Finite Mathematics I

4-0-4

A non-rigorous approach to the study of sets and set algebra, introductory logic and proofs, topics from the real number systems and some consumer mathematics. This course is primarily intended for the student in liberal arts and other non-technical fields. Prerequisite: DSM 0100 or satisfactory placement score. (F, W, 5P, 5U)

MAT 0102 Finite Mathematics II

4-0-4

A continuation of MAT 0101. Topics include mathematical systems, introductory algebra, elementary combinatorics, probability, and introductory statistics. Prerequisite: MAT 0101. (W, 5P, 5U)

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: DSM 0101 or satisfactory placement test score in algebra. (W, 5P)

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 Intermediate 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 DSM 0101) 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 DSM 0100) and algebra (or DSM 0101). (F, 5U)

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, 5, 5U)

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, 5P, 5U)

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 3-0-3

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 3-0-3

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 0101 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 0102 Machine Shop Theory and Practice** 3-12-7
An introduction to the assembly of parts, fits, hard 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 0103 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 0104 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 0107 Applied Mechanics** 5-0-5
Concepts and applications of statics and dynamics. Force systems, moments and couples, equilibrium, trusses, friction, centroids, center of gravity, moments of inertia, motion, work, energy, momentum, and impulse are covered. Applications relating to the particular technology are introduced.
- MEC 0110 Machine Processes** 3-3-4
A course to acquaint the student with basic machine tools of industry through lectures, demonstrations, and hands-on practice. It will include the study of safety practices; measuring instruments; characteristics of basic machine tools, materials, and cutting tools; and actual experience on lathe, drill press, milling machines, shaper and grinder.
- MEC 0113 Numerical Control Principles** 3-0-3
An introductory course to acquaint the student with principles and applications of numerical control. Relationships between machine tools, mathematics, and drafting practices are presented. Number systems, part programming, and manuscript preparation are covered. New developments in numerical control discussed.
- MEC 0118 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 0119 Applied Metallurgy** 3-2-4
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 0205 Strength of Materials** 5-0-5
Study of stresses and deformation which occur within machine and structure elements subjected to various types of loads. Stress, strain, shear, torsion, bending and factors affecting these are analyzed. Stresses in thin-walled cylinders and spheres, riveted and welded joints, beams, columns and machine components are also covered.
- MEC 0208 Machine Design** 3-3-4
A study of factors affecting the design of machines. Applications of the principles of mechanics, properties of materials, manufacturing processes and economics of production fundamental to the design of machine components. Empirical and theoretical equations, practical considerations, and design procedures are included.
- MEC 0235 Hydraulics and Pneumatics** 3-0-3
The basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulations and reservoirs.
- MEC 0238 Heating, Refrigeration and Air Conditioning Systems** 3-0-3
An introduction to heating, air conditioning and refrigeration systems. Study of systems to include the characteristics and selection of equipment and their controls. Thermodynamic principles; psychometrics of air; heat gain/loss calculations; cooling loads; and steam, hot water, warm air, air conditioning, and refrigeration systems are discussed.
- 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 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.

MANAGEMENT**MGT 0190 Leadership Development**

3-0-3

A course which demonstrates how leadership orientations lead to formation of leadership styles, and how these styles influence employee morale and productivity. Specific emphasis will be placed on developing a style of personal leadership which has a positive effect on employee performance. The design of the course employs group projects, individual exercises and measurement tools to identify existing leadership skills and methods for development.

MGT 0191 Department Manager's Training Seminar

OR

MGT 0192 Supervisor's Training Seminar

3-0-3

The Seminar is designed for participants to have a better understanding of state and federal laws and will include resource people on topics such as OSHA, EEO, Unemployment Insurance, Worker's Compensation, and pertinent topics for today's managers.

MGT 0193 Accurate Perception and Communication

3-0-3

This course is designed to encourage participants to be aware of the basic elements of perception and how these affect their communications and relations with other people.

Participants will be involved in role playing to demonstrate effective communication with others. Knowing something about your own perceptions and that of your co-worker will aid in improving transmission of intended meaning.

MGT 0194 Coaching in Supervision 3-0-3

This course presents special knowledge, techniques, and skills for coaching your employees on the job. It is based on the learn-by-doing principle. Exercises in problem solving will be conducted and also role playing. Giving an effective reprimand will be covered in course material.

MGT 0195 Team Building 3-0-3

A course to help people learn to work together effectively. Focus is on interpersonal relationships. The body of the course revolves around a series of carefully designed activities. Participants will work in small groups and apply the team-building techniques they learn with other members.

**MGT 0196 How To Deal More Effectively With Stress,
Time Management and Change** 3-0-3

This course involves a comprehensive look at these three topics. Diagnosing personal sources of stress and determining individual strategies for change. How to cope with change and use change in a positive way instead of always negative. Participants discover how to keep track of their time . . . find out where their priorities lie . . . cut down on wasted time . . . and get practical management techniques for controlling time and turning it into a manageable resource.

MGT 0197 Effective Writing and Speaking for Business and Industry 3-0-3

A course designed to help participants speak in front of a group and to write effectively. Course will be divided into two parts covering the speaking and the writing techniques.

- I. Writing: How to organize your writing and write in a conversational manner. Participants will be involved in writing effective paragraphs, writing inquiries and complaints, answering inquiries and complaints, writing reports.
- II. Speaking: A practical, relaxed course designed to help people speak in front of a group, using your verbal and nonverbal communication to persuade the audience.

MGT 0198 Time Management 1-0-1

This course involves identifying some of the ways that time is wasted, identifying and describing some tools and techniques that are useful for effective time management, and describing delegation as it applies to time management. Students who take this course will not be eligible to take MGT 0196.

MGT 0199 Stress Management 1-0-1

This course involves exploring the symptoms of stress. Techniques in handling stress will be presented. Self-scoring questionnaires will be used in determining stress levels. Students who take this course will not be eligible to take MGT 0196.

MGT 0200 Change 1-0-1

This course deals with change and how to adjust effectively. It also teaches us how to train ourselves to be more flexible so that change is not a negative experience but an opportunity. Students who take this course will not be eligible to take MGT 0196.

MGT 0201 Effective Communication 1-0-1

This course is designed to encourage participants to be aware of the basic elements of communication and how their communications affect their relations with other people. Participants will be involved in role playing to demonstrate effective communications

with others. Knowing something about your own perceptions and that of your coworker will aid in improving transmission of intended meaning. Students who take this course will not be eligible to take MGT 0193.

MGT 0210 One-Minute Manager 1-0-1

This course is designed to improve managerial skills and aid the manager in goal setting, reprimands and praising. Materials will be used to help the manager plan his time more effectively through involving his employees.

MGT 0217 Motivational Dynamics—Unit I 1-0-1

This course is Unit I of III and deals with the mainsprings of motivation. Topics covered are the emergence of the motivational hypothesis, understanding individual behavior, motivation and management, and the ingredients of motivation. Students who take this course will not be eligible to take MGT 0216.

MGT 0218 Motivational Dynamics—Unit II 1-0-1

This course is Unit II of III and deals with managing groups—the key to productivity. Topics covered are understanding group behavior, productivity and maintenance of morale, organizational climate and effective supervision, and practicing participative management. Students who take this course will not be eligible to take MGT 0216.

MGT 0219 Motivational Dynamics—Unit III 1-0-1

This course is Unit III of III and deals with modern management techniques. Topics covered are the management of change, managing the communication process, management by objectives, organizational development-planned, and organizational change. Students who take this course will not be eligible to take MGT 0216.

*Students may elect up to 8 additional hours in Cooperative Education to satisfy elective requirements.

MUSIC

MUS 0101 Introduction To Music History 3-0-3

A study of Western music from The Middle Ages through the contemporary period. Prerequisite to all music history courses. (F)

MUS 0102 Medieval and Renaissance Music History 3-0-3

This course deals with the development of Western music after the Dark Ages. The course covers both vocal and instrumental works, with emphasis on Medieval musical instruments. (W)

MUS 0103 Baroque Music History 3-0-3

The lives and music of such composers as Bach, Handel, and Vivaldi are studied in relationship to their environment. Development of notation, temperament, and patronage are given close attention. (SP)

MUS 0104 Musicianship I 3-0-3

This course covers the elementary rudiments of music, specifically scales and intervals. The identification of these scales and intervals are practiced through melodic dication. Also rhythmic dication will be introduced. (F)

MUS 0105 Musicianship II 3-0-3

This course is a continuation of Musicianship I, but deals with keys and triads. Melodic and rhythmic dication are continued and combined. Prerequisite: MUS 104. (W)

MUS 0106 Musicianship III (Basic Harmony) 3-0-3
This course teaches the basic techniques of four part harmony based on the principles of 18th and 19th century composers. Prerequisite: MUS 105. (5P)

Applied Music

MUS 0110, 0111, 0112, 0210, 0211, 0212	(Voice)	1-2-1 (each)
MUS 0120, 0121, 0122, 0220, 0221, 0222	(Piano)	1-2-1 (each)
MUS 0130, 0131, 0132, 0230, 0231, 0232	(Brass)	1-2-1 (each)
MUS 0140, 0141, 0142, 0240, 0241, 0242	(Woodwind)	1-2-1 (each)
MUS 0150, 0151, 0152, 0250, 0251, 0252	(Percussion)	1-2-1 (each)

Applied Music is the term given to the study of a principal instrument. A student with a concentration in music must be able to demonstrate his skill on a musical instrument. The student may choose to study either voice, piano, brass, woodwind, or percussion, depending on prior experience or musical aptitude. Each student is required to complete six successive quarters of Applied Music. Applied music majors and principals are required to take a jury examination before the faculty in their applied area at the end of each quarter. The jury functions as an advisory group so far as the applied music grade is concerned.

MUS 0160 Chorus 0-3-1
This study-activity course is designed to give the student a deeper understanding, appreciation, and enjoyment of choral music, its practice and performance. This choral class is open to all students in all divisions of the college who wish to continue their interest in part singing (soprano, alto, tenor, bass). This course is required of music majors. Students may take this course for six quarters for credit. (F, W, 5P)

MUS 0161 Music Appreciation 3-0-3
This course is designed to give the student an understanding of basic materials of music and to enable him to listen to the various forms of music with deeper understanding, appreciation, and pleasure. Representative works related to historical and cultural background of music from the Middle Ages to the Romantic Period are studied and compared by lectures and aural analysis. Open to all students. (F, W, 5P)

MUS 0162 American Music of the 20th Century 3-0-3
American Music in the 20th century 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 Beginning Guitar 3-0-3
Students enrolled in Beginning Guitar view a lesson shown on filmstrip while listening to a coordinated tape. Each lesson helps the student to develop a knowledge of forming chords, reading melodies and playing various accompaniment styles. Playing along with a combo is included in each taped lesson. Following the lesson, each student is given individual help in mastering a variety of musical skills and playing a variety of types of songs. Students must furnish their own guitars. (F, 5P)

MUS 0164 Piano I 3-0-3
The student participating in the KEYBOARD MAGIC course will, at its conclusion, be able to demonstrate his understanding of comprehensive musicianship in good keyboard performance. He/she will also demonstrate adequate motor skill in development through the performance of a variety of repertoire. Open to all students. (F, W, 5P)

- MUS 0165 Piano II** **3-0-3**
 The student participating in the Piano II course will, at its conclusion, be able to demonstrate his mastery of specific musical concepts begun in Piano I by successfully completing written assignments, tests, and performance of varied repertoire. In addition, the student will be able to demonstrate his understanding of major, minor, and varied musical styles; blues, latin rhythms, pop, hymn tunes, classics, circle of fifths, ensemble playing, and transposing. Prerequisite: Piano I or permission of instructor based on written tests and performance skills. (F, W, SP)
- MUS 0166 Piano III** **3-0-3**
 The student participating in Piano III will, at its conclusion, be able to demonstrate his mastery of specific musical concepts begun in Piano I and Piano II by successfully completing written assignments, tests, and performance of varied repertoire. In addition, the student will be able to demonstrate his understanding of chord qualities, seventh chords, chord inversions, chord progressions, and be able to compose and harmonize single melodies. Students will demonstrate an ability to participate in ensemble playing, as well as solo performance representing varied musical styles. Prerequisite: Piano I and Piano II or permission of instructor based on written tests and performance skills. (F, W, SP)
- MUS 0167 Piano IV** **3-0-3**
 The student participating in Piano IV will, at its conclusion, be able to demonstrate his understanding of major and relative minor scales and key signatures; seventh chords, ninth chords & augmented chords. In addition, he will be able to play all scales with correct fingering and will be able to read and play chord charts. He will be able to understand the sonata form and play a sonata. He will learn to play various styles of music, such as hymns, classics, and popular music. Prerequisites: Piano I, II, III or permission of instructor based on written tests and performance skills.
- MUS 0170 Piano Skills for Music Majors** **3-0-1**
 This course is required for all non-piano music majors. In it, the basic fundamentals of piano technique are emphasized, along with an overview of piano literature, and participation in ensembles. Successful mastery of the content of this course will be required before credit will be given. Students will be required to repeat this course each quarter until the Piano Proficiency Examination is passed. (F, W, SP)
- MUS 0201 Eighteenth Century Music History** **3-0-3**
 The lives and music of Haydn, Mozart, and Beethoven are studied in relation to their environment. The development of the symphony and sonata form are given close attention. (F)
- MUS 0202 Nineteenth Century Music History** **3-0-3**
 The lives and music of Schubert, Brahms, Mendelssohn and other composers are studied in relation to their environment. The development of opera and art are studied closely. (W)
- MUS 0203 Twentieth Century Music History** **3-0-3**
 The music of our century is discussed in relation to world events. Impressionistic, expressionistic, neo-classic, and twelve tone compositions are viewed in terms of origin and form.
- MUS 0204 Musicianship IV** **3-0-3**
 In this advanced musicianship course, the student will learn to recognize by sight, chords and basic chord progressions. Sight-singing and dication are continued. Prerequisite: MUS 0106. (F)

- MUS 0205 Musicianship V (Form and Analysis)** 3-0-3
 In this course the works of Western composers are studied closely in terms of harmony and content. Tonal counterpoint is also introduced. Prerequisite: MUS 204. (W)
- MUS 0206 Musicianship VI (Twentieth Century Styles & Techniques)** 3-0-3
 This course deals with the basics of modern styles and techniques of composition used by Debussy, Stravinsky, Schoenberg, and other 20th century composers. The newest trends in electronic music are also discussed. Prerequisite: MUS 205. (SP)
- MUS 0260 Opera Workshop** 2-0-1
 Each fall, an opera is presented in the local area. This course is a study of the particular opera in terms of its history and content. The class also serves as the chorus for the opera in actual performance. In the event that an opera is not produced in the fall, various opera scenes will be performed by the class. (F)
- MUS 0261 Chamber Singers** 2-0-1
 A vocal group specializing in the performance of chamber literature of all periods. Although designed primarily for music majors, the group is open to all students by permission of the instructor. (W)
- MUS 1100 Music Awareness** 2-0-2
 This course is designed to introduce the student to a variety of musical types, styles, and personalities. Varied musical examples will be played in class. Guest musicians from time to time will be invited to perform for the class. A primary goal of the course is that the students will broaden their knowledge of the fundamentals of music, and expand and develop their musical awareness so that they may listen to good music with greater understanding and pleasure. While this course is designed primarily for students enrolled in cosmetology, it is open to other students. (F, W, SP)

NURSING ASSISTANT

- NUR 1115 Basic Nursing Assistant Procedures I** 6-6-0-9
 Survey of basic health science. Introduction to role of nursing assistant, to understanding effects of illness and to learning how to perform treatment and make observations on geriatric patients. Safety measures in the care of the sick will also be covered. Prerequisites: None
- NUR 1116 Basic Nursing Assistant Procedures II** 4-2-0-5
 A continuation of procedures covered in NUR 1115. Additional topics include measures to promote the patient's comfort, special types of patient care, and methods of becoming a successful health care employee. Prerequisites: NUR 1115 or discretion of division chairman.

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)
- PHI 0262 Deductive Logic** 3-0-3
 A course in the general principles of deductive logic; both classical and symbolic. Emphasis will be placed on formal logic in analysis and language discourse and also covering ambiguity, fallacies, and the logic of propositions. (SP)

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, SU)

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 0104 Beginning 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/Gymnastics

0-3-1

A course designed to develop various movement skills and body control techniques through basic tumbling skills; an introduction to basic gymnasium apparatus work. (F, W)

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 0109 Yoga (F, W, SP, SU)

0-3-1

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 Beginning 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 0114 Weight Training

0-3-1

A course of instruction designed to develop and maintain an adequate level of physical fitness through resistive (weight) training. Each student works and progresses through

the program of exercise at a rate reflecting their present level of capability and needs. (F, W, SP, SU)

PED 0115 Karate I 0-3-1
An introduction to the ancient art of Karate, this course stresses physical conditioning and the fundamental skills of this form of the martial arts. (F, W, SP, SU)

PED 0117 Karate II 0-3-1
A course of instruction stressing physical and mental development in the art of Karate. This course is an advanced level of study and is not suitable for individuals with no previous experience. Prerequisite: PED 0115. (F, W, SP, SU)

PED 0124 Clogging 0-3-1
A course designed to teach various types of positions, formations, steps, and identifiable characteristics of clogging. (W)

PED 0125 Advanced Clogging 0-3-1
A course designed to teach advanced clogging positions, formations, and steps. (F)

PED 0127 Fitness and Figure Control II 0-3-1
An advanced exercise course designed to build on the basic skills and concepts taught in PED 0107, Fitness and Figure Control I. (F, W, SP, SU)

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 second. (F, W, SP, 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, SP, 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. (5P)

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 0139 Swimnastics 0-3-1

A physical fitness course designed to improve muscular strength, endurance, flexibility and cardiovascular endurance through mild resistive exercise in the water. The course will contribute to improve appearance, release of tension, and with proper diet can aid in weight reduction. Highly recommended for individuals who may not be able to participate in other types of fitness exercise due to muscle, bone, joint, or other conditions, as exercise in the water reduces the overall stress on the body during exercise.

PED 0140 Backpacking I 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 0141 Backpacking II 0-3-1

A course of instruction in advanced backpacking techniques. The course emphasizes the theory and practical application of planning and execution of extended backpacking experiences in the wilderness. A substantial portion of the class will be spent on the trail in a selected wilderness area. This course is not recommended for individuals with limited hiking and backpacking skills. Prerequisite: PED 0140 or evidence of basic backpacking skills. (F, 5P)

PED 0143 Winter Camping 0-3-1

A course of instruction in the application of basic camping and backpacking skills to camping in cool weather. Emphasis is placed on theory and practical application of knowledge and skills that will enable the individual to adequately plan and experience the winter wilderness experience in safety and comfort.

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 0145 Basic Sailing** 0-3-1
A course of instruction in the safe and correct handling of small sailing craft. (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 River 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 0160 SCUBA Diving** 0-3-1
A course of instruction designed to teach safety, basic skills, and knowledge of SCUBA diving. A student completing the course will be prepared to participate in open water diving to qualify for certification. Prerequisite: 1) Swim 200 yards; 2) Tread water 5 minutes; 3) Surface dive to a depth of 9 feet. (F, 5P, 5U)
- PED 0162 Kayak** 0-3-1
A basic course of instruction in the safe and correct handling of the kayak. Prerequisite: Ability to swim 100 yards demonstrating the use of at least two types of swimming strokes; ability to stay afloat in deep water, fully clothed, for five minutes. (F, 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)
- PED 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)

PED 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, SP, SU)

PED 0244 Adapted Aquatics**0-3-1**

A course of instruction in aquatics for the handicapped. This course is designed to achieve two objectives: To provide individualized instruction in safety and basic aquatic skills for the handicapped; and to provide opportunities for individuals who desire to learn the characteristics, needs, and techniques of aquatic instruction for the handicapped. The course will offer classroom instruction and a personalized practical learning atmosphere for the handicapped student and the student of aquatics for the handicapped. (F, W, SP, SU)

PHYSICAL SCIENCE**PHS 0101, 0102, 0103 Physical Science I, II, III****3-3-4 (each)**

An integrated perspective of the physical sciences, study of selected topics such as systems of measurement, the expanding universe, structure of the earth, kinetic molecular theory of matter, energy (types, transformation, utilization), properties of elements and compounds, structure and utilization atoms. The role of science in the development of civilization is emphasized. Three laboratory hours per week. (F, W, SP)

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.

PHS 0170 Environmental Science**3-0-3**

This is a man-centered study of the health, economic, ecological and aesthetic effects of our use of our natural resources. The physical, biological, and chemical processes that occur in nature are studied as to how they relate to man's activity and his generation of the different forms of pollution. Methods of controlling our environment for better living conditions and for a longer future are considered.

PHYSICS

PHY 0100 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.

PHY 0160 Descriptive Astronomy 2-2-3

This course will study the structure, mechanics, and observation of the solar system, stars and nebulae. (W)

PHY 0201 General Physics I 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 II 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 III 3-3-4

Electricity and magnetism and atomic structure are the major topics for study. Three laboratory hours per week. Prerequisite: PHY 0202. (SP)

PHY 0220, 0221, 0222 are calculus level courses for engineering and science majors.

PHY 0220 Analytical Physics I 4-3-5

This is a quantitative treatment of Newtonian mechanics, covering different motions of bodies, vectors, work, energy and power. Prerequisites: MAT 0131, 0132. (F)

PHY 0221 Analytical Physics II 4-3-5

A continuation of physics with emphasis upon the study of thermodynamics, sound and optics. Prerequisite: PHY 0220. (W)

PHY 0222 Analytical Physics III 4-3-5

Electricity, magnetism and nuclear physics will be the major topics of study. Prerequisite: PHY 0221. (SP)

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. (SU)

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 0160 Great Decisions 2-0-2

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)

POL 0263 Special Topics in Political Science variable
This course will be concerned with special timely topics that occur in the political science area of study.

PRACTICAL NURSING

NUR 1101 Nursing Fundamentals 6-6-8
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)

BIO 1102 Anatomy/Physiology 3-2-4
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 reproduces itself are necessary to understand disease processes and the nursing care of patients. (F)

NUT 0101 Nutrition 3-0-3
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)

NUR 1103 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 physiol-

ogy 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)

NUR 1108 Pediatrics 5-9-8

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 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)

NUR 1111 Vocational Adjustments 3-0-3

This course introduces the student to a brief history of nursing, the legal aspects of nursing, professional ethics, and varied positions available to them in the field of nursing. (SU)

NUR 1102 Medical Surgery I 9-12-12

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, to discuss therapeutic methods commonly prescribed, and a study of the systems of the body and related nursing care. Clinical experience will 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)

NUR 1104 Medical Surgery II 9-18-14

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 patients. A clinical component is included. (SU)

NUR 1105 Pharmacology I 3-0-3

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. (F)

NUR 1107 Pharmacology II 1-0-1

A continuation of Pharmacology I. This course is a study of the legal aspects of drug administration and the methods of drug administration. (W)

PSYCHOLOGY

- PSY 0100 Human Potential Seminar** 3-0-2
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 0103 Stress Management** 3-0-3
Offered to assist students in better understanding and coping with various types and degrees of stress as it relates to everyday living experiences. Emphasis placed on environmental, physical and psychological factors as well as techniques to deal with and reduce stress levels. Biofeedback, progressive relaxation, breathing, meditation, dream interpretation, coping skills, diet and nutrition and other topics will be discussed and practiced so the individual can better deal with personal conflicts, interaction with others, occupational and domestic crises, test anxiety, and disease control. (F, W, SP, 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 0117 Human Growth and Development** 3-0-3
(For Nurses)
Considers the developmental sequence and characteristic behavior of the prenatal period through the life span. Special attention will be given to developmental changes and conditions necessary for optimal development and individual differences. (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 prenatal 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. (5P)
- 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. (5P)
- 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 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.

RECREATION

- REC 0101 Introduction to Recreation Services** 3-0-3
 This course is designed to introduce the student to the historical and philosophical foundations of leisure and recreation. It includes study of factors involved in the operation of basic recreation units, major program areas, organizational patterns, and the inter-relationship of special agencies and institutions which serve the recreation needs of society.
- REC 0102 Recreational Activities I** 2-3-3
 A study of the role of dance and social recreational activities in recreation programs. Students will develop skill in these areas through classroom experiences. Leadership skills in planning, programming, and conducting activities will be stressed.
- REC 0103 Recreational Activities II** 2-3-3
 A study of the role of music and drama activities in recreation programs. Students will develop skill in these areas through classroom experiences. Leadership skills in planning, programming, and conducting activities will be stressed.
- REC 0104 Recreational Activities III** 2-3-3
 A study of methods and procedures for conducting a wide variety of individual and group recreational games, activities, tournaments, and special events. Recreation for the handicapped and special groups will be included.

- REC 0105 Arts and Crafts** 1-3-2
This course demonstrates the methods and materials used in arts and crafts projects applicable to camps and related recreational facilities. Emphasis is on constructing, administering, promoting, and teaching crafts.
- REC 0106 Small Craft Operation I** 3-3-4
A course of instruction in the safe and correct handling of the canoe and related small craft, selection and care of equipment, teaching and organizational methods. Emphasis is placed on preparing the student to be competent in the planning, direction, and instruction of basic small craft activities. Prerequisite: Ability to swim 50 yards; remain afloat in deep water, fully clothed, for 5 minutes.
- REC 0107 Small Craft Operation II** 3-3-4
A course of instruction in the safe and correct handling of sailing craft, selection and care of equipment, teaching, and organizational methods. Emphasis is placed on preparing the student to be competent in the planning, direction, and instruction of basic small craft activities. Prerequisite: Ability to swim 50 yards; remain afloat in deep water, fully clothed, for 5 minutes.
- REC 0108 Aquatic Activities** 1-3-2
A study of the role of water sports and activities in recreation programs. Basic swimming pool and waterfront operation will be discussed. Leadership skills in planning, programming, and conducting activities will be gained through class experience. Prerequisite: Completion of swimming requirement.
- REC 0109 Group Sports and Games** 2-3-3
A course of instruction designed to teach the fundamental skills, rules, and methods necessary to conduct a variety of group games and sports for varied age groups.
- REC 0110 Individual Sports and Games** 2-3-3
A course of instruction designed to teach the fundamental skills, rules, and methods necessary to organize and conduct a variety of individual games and sports for varied age groups.
- REC 0111 Outdoor Recreation** 3-3-4
An overview of the scope, extent, history and development of outdoor recreation and its relationship to conservation and preservation of wilderness areas. Topics such as the role of man and recreation in the wilderness ecological system, state and federal land management practices, and the future of outdoor recreation will be studied. Familiarity with the inter-relationship of various wilderness components will be developed through field studies.
- REC 0112 Outdoor Recreational Activities** 2-3-3
A course designed to prepare the student to plan and direct recreational and educational activities in the out-of-doors. The student will be exposed to a variety of outdoor activities such as rock climbing, rafting, and nature walks.
- REC 0113 Camping and Backpacking** 2-3-3
A course of instruction designed to acquaint the student with the fundamentals of camping and backpacking. It includes such topics as equipment, meal planning and preparation, trail and camp safety, and shelter. Field work provides actual experience in camping and backpacking.
- REC 0114 Wilderness Experience** 2-3-3
A course designed to teach the principles of preparation and execution for extended wilderness outings. A field experience will be designed to expose class members to a variety of wilderness areas demonstrating the special planning required for each.

- REC 0115 Anatomy and Physiology of Exercise** 3-0-3
A study of basic human anatomy and physiology concentrating on the major body systems. Special emphasis is placed on the role of these systems in the production and control of movement, the acquisition of motor skills, and how they respond to exercise.
- REC 0116 First Aid and Safety in Recreation** 4-0-4
A study of accident and emergency situations; causes, prevention, and appropriate first aid treatment. A course of instruction designed to develop competency in recognition of the symptoms of common injuries and illnesses, and the performance of first aid skills. Special emphasis will be placed on safety in sports and recreation.
- REC 0117 Psychology of Sports and Recreation** 3-0-3
This course is designed to explore the psychological aspects of participation in sports and recreational activities. The role of individual personality traits in sports, aggression in sports, psychological benefits of recreation, leisure counseling, behavior problems and recreation, and related topics will be presented.
- REC 0120 Group Leadership and Supervision** 3-0-3
A study of factors which characterize various groups and the principles which promote leadership among and within the group. Topics studied will include the leadership functions, the leadership process, techniques of working with groups, supervision, personnel practices and policies, safety and liability. Emphasis will be placed on development of leadership skills.
- REC 0121 Program Planning** 3-0-3
A study of essential elements and basic principles involved in the organization, supervision, promotion, and evaluation of programs for traditional and special groups.
- REC 0122 Facility Planning** 3-0-3
A study of general principles and techniques employed in recreational facility planning. Specific emphasis will be placed on camp facility planning ranging from rustic area development to modern highly developed areas.
- REC 0123 Camp Management** 3-0-3
A study of administrative and management principles and practices essential to the operation of a camp or outdoor recreation facility. Such topics as budget, personnel practices, legal principles and practices, and overall camp operations will be stressed.
- REC 0124 Facility and Grounds Maintenance** 2-3-3
A study of general principles and practices employed in the maintenance of recreational facilities. The student will gain practical experience in basic maintenance and improvement operations in a variety of indoor and outdoor recreational areas.
- REC 0130 Field Experience** 1-30-4
This course is designed to provide the student with the opportunity to observe and develop leadership skills while working with people in a recreational facility or activity. Observations made in field experience will be related to course work through discussion. Students will formulate methods and procedures for applying past observations to future experiences.

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, SU)

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. (SP, SU)

REL 0170 Leaders in Christianity 3-0-3
This course is designed to acquaint the student with the leaders of christian doctrine and practice. It is a biographical study of men and women who have guided christianity. Special emphasis is given to the reformation period and the formation of various denomination.

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, SU)

SOC 0161 Social Problems 3-0-3
A study of the major social problems of modern society, including family disorganization, minority groups, and problems associated with industrial and urban development. (W, SU)

SOC 0162 Sociology of the Family 3-0-3
Study of the American family with attention given to courtship, marriage, family relationships and interdependencies, and social cultural stresses emerging from contemporary family life. (SP, SU)

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 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 0111 Fundamentals of Textiles 3-0-3
An introduction to textiles, including the history of the industry, description of textile materials and products and their utilization. Presentation of the basic manufacturing systems, materials flow, terminology and calculations.

TEX 0113 Textile Math I 3-0-3
Designed for persons preparing for a career in textiles, this course makes application of fundamental mathematical skills to textile manufacturing. Included are percent, ratio and proportion, gear and pulley calculations, basic descriptive statistics, and calculations applicable to looms, drawing frames, pickers and other textile machinery.

TEX 0114 Textile Math II 3-0-3
Emphasizes lap, sliver, roving and single yarn calculations; calculations for picker, card, drawing frame, sliver lapper, comber, roving frame, spinning frame, twister, spooler and warper. Prerequisite: Textile Math I.

TEX 0211 Yarn Forming Systems I 3-0-3

A general description of yarn will introduce the study of yarn forming systems. Included in this course will be opening and picking processes, card, drawing, and combing process, and fiber blending. Basic fundamentals of textile processing will be emphasized as each aspect of yarn formation is studied. Prerequisite: Textile Math I and II.

TEX 0212 Yarn Forming Systems II 3-0-3

This course will deal with yarn formation starting with the roving process and will include spinning, winding and twisting. Processing of filamentous synthetic yarns will also be studied. Basic fundamentals of textile processing will be emphasized.

TEX 0213 Fabric Forming Systems 3-0-3

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.

*Students may elect up to 8 additional hours in Cooperative Education to satisfy elective requirements.

WELDING

WLD 0135 Basic Welding and Cutting 2-3-3

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling the welding equipment. Practice will be given for surface welding, bronze welding, silver soldering, and flame-cutting methods applicable to mechanical repair work.

WLD 1101 Welding I 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)

WLD 1111 Basic Gas Welding 0-3-1

Welding demonstrations by the instructor and practice by the students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice is given for surface welding, bronze welding, silver-soldering, and flame cutting methods applicable to mechanical repair work.

WLD 1112 Basic Arc Welding 0-3-1

Welding practices on material applicable to the installation of body panels and repairs to doors, fenders, hoods, and deck lids. Students run beads, do butt and fillet welding. Performs tests to detect strength and weaknesses of welded joints. Safety procedures are emphasized throughout the course. Intended for students in Auto Body Repair.

WLD 1118 Welding Problems I 5-3-6

Special emphasis will be given to oxyacetylene cutting. Various cutting equipment and cutting techniques will be practiced.

WLD 1119 Welding Problems & Blueprint Reading 4-3-5

Emphasis will be given to the different types of metal that may be joined by the arc welding process. Blueprints will be used to demonstrate the various symbols used in the welding process.

WLD 1120 Welding Problems III 5-3-6

Special emphasis will be given to certification practices using inert-gas-shield arc welding. A student will have the opportunity to practice his/her welding techniques.

WLD 1121 Welding Problems IV 4-6-6

Special emphasis will be given to fabrication techniques. The student will be allowed to experiment by doing special projects.

WLD 1135 Basic Welding and Cutting 2-3-3

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling the welding equipment. Practice will be given for surface welding, bronze welding, silver soldering, and flame-cutting methods applicable to mechanical repair work.

WLD 1140 Metallurgy for Welders 3-0-3

Emphasis will be placed on the methods of treating ferrous and non-ferrous metals. The effects of hardening, tempering, and annealing upon the structure and physical properties of metals will be studied.

CONTINUING EDUCATION

Continuing Education's flexibility provides the opportunity to meet a wide variety of individual and group educational needs. Subjects available range from learning the alphabet to the study of a high tech skill. Many can be offered on a basic, intermediate or advanced level of study. Some courses are offered on a continuing basis while others are given in response to requests of individuals or groups. Study groups meet in schools, churches, community clubs, fire stations, industry, and rest homes throughout Rutherford and Polk Counties. Class hours, the length of the course, and the number of meetings per week can be arranged for the convenience of the participants.

Persons or organizations (a neighborhood group, an industry, or a church group, for example) are urged to call the Continuing Education office, 286-3636 in Spindale, and 859-5868 in Tryon, regarding classes scheduled, the possibility of locating a class in your community, or organizing a class around a new idea.

Admission and Registration

Adults 18 years of age or older are eligible to participate in Continuing Education classes. High school students from Rutherford County, age 16 to 18, may enroll in a course if the hours do not conflict with the student's regular school program. (This does not apply to students interested in the ABE or adult high school program). It is important for a person planning to participate in a class to call the Continuing Education office and place their name on the class list. All people listed will be notified of schedule changes. Registration and payment of fees are made at the first class meeting.

Registration Fees

Student fees depend on the type of course. Adult Basic Education and the High School Diploma programs are free of charge. Academic and occupational courses cost \$10.00. All other class fees vary. The cost is \$.75 for each study hour (a class of 4 hours would cost \$3.00; a 30 hour class would be \$22.50). Please check with the office or note the cost when the class is announced. North Carolina residents age 65 and over are exempt.

Occupational Extension Program

Occupation oriented classes appeal to those seeking to retrain or upgrade their knowledge or skills for job qualification or improvement. The college also provides business, industry and public service organizations classes that concentrate on employee development.

The following is a brief list of occupational oriented courses:

Blueprints and Measurements	Industrial Fire Brigade
Building Contractor's Code	Law Enforcement
Child Care	Management Development
Emergency Medical Service	Metallurgy
Fire Fighting	Nursing Service
Geriatric Care	Pre-weaving
Industrial Electronics	Secretarial Skills

Academic Extension Program

Traditional college courses are modified for the adult seeking self-improvement and enrichment study. Classes may be developed from the following categories:

Humanities	History
Religion	Journalism
Languages	Philosophy
Math	Politics
Anthropology	Sociology
Economics	Psychology
Geography	Science related

Avocational and Practical Skill Programs

Courses designed for self-satisfaction. Classes may help participants broaden talents, stimulate creativity or to develop skills that are not work related. The list below provides ideas for the type of classes that can be offered.

Craft	Ceramics
Power Puff Mechanics	Wood-working
Cake Decorating	Bricklaying
Calligraphy	Genealogy
CPR	Cooking
Painting	Sign Language
Stitchery	Quilting
Photography	Guitar
Drapery Making	Gunsmithing

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. ABE classes are often 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.

HRD Program

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 underemployed. Six classes are held each year.

There are two components: (1) Basic Skills 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-getting 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.

Learning Laboratory (Adult High School Diploma Program)

The Learning Laboratory on campus and the Learning Center in Tryon offer educational opportunities to individuals at the 5th 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 filmstrips, tapes, and 16 mm films are also available. Most of the material is semi-programmed, providing an opportunity for self-instruction. Instructors are available to assist the student as he/she advances in his/her study 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 2 units
- (3) Social Studies 2 units
- (4) Science 2 units
- (5) Elective 1 unit
- (6) Passing Score North Carolina Competency Test

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

- (1) Students may transfer credit from high school via a transcript.
- (2) Students who make seventy-five (75) or above on the reading placement test, may elect to take challenge tests and receive credit by scoring 50th percentile or higher on selected standardized achievement tests.
- (3) Students 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 the County Superintendent of Education. Students may choose to study at the Learning Laboratory on the Spindale campus, or at the Learning Center on the Polk County campus, or at an extension high school class. Each student in this program works independently of others, arranges his/her own study schedule, and proceeds at his/her own pace. Diplomas earned are valid for those who wish to continue their studies in institutes of higher learning. There are no fees for this program.

GED study materials are also available in the Lab. A student who plans to take the GED test should enroll in the Lab and take the GED practice tests. These tests indicate whether or not the student should study before taking the actual test. It also indicates which subjects the student should study.

General Interest Studies—Self-Enrichment Courses

Many general interest courses are available in the Learning Lab 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 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 Rutherford County is presented below:

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 5-14), Speed Reading, Comprehension, Vocabulary Improvement and Study Skills.

SCIENCE—General Science, Astronomy, Biology, Chemistry, Anatomy and Physiology, Body Structure and Function, Basic Patient Care.

SOCIAL STUDIES—U.S. History, The Constitution, How a Bill Becomes a Law, Geography of the U.S., Civics, and Black Culture/History.

GENERAL INTEREST—Basic Automobile and Parenthood. "How to prepare for" books are also available for those who plan to take the Civil Service exam, N.C. Competency test, SAT, GRE, and Miller-Analogy.

Hours: Learning Lab (Campus)

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

Monday-Thursday

8:00 a.m.-3:00 p.m.

Friday

ADMINISTRATORS AND FACULTY

- Joyce Abernethy Learning Lab Instructor
B.S., Gardner-Webb College
- Marvie Alexander Individualized Instruction Center
- Arnold Atchley Auto Body Repair
General Motors Training School
- Geoffrey Balkam Associate Vice President, Polk County Campus
B.S., M.A., Central Michigan University; Ed.D., Western Michigan University
- Alice Balot Librarian, Coordinator of Individualized Instruction-
B.A., M.Ed., University of Delaware Polk County Campus
- Edward L. Barrier Registrar/Evening Director-Polk County Campus
A.B., University of North Carolina; M.M., University of Tennessee
- Donald Beam Electronics
B.S., North Carolina State University
- Carole Blackburn Coordinator, Continuing Education/Outreach,
B.A., Salem College Polk County Campus
- Carl Biggerstaff Research Technician
A.A., Isothermal Community College; B.S., Gardner-Webb College
- Raleigh Biggerstaff English
A.A., Lees-McRae College; A.B., M.Ed., University of North Carolina
- Peggy Blanton Special Services
B.A., M.A.T., Winthrop College
- Mary B. Burgin Director of Admissions and Development
B.S., East Carolina University; M.A., Appalachian State University
- Leonard Byers Machinist
- William B. Bynum Director Old Tryon Collection
B.A., Wofford College; M.A., Univ. of Virginia
- Barbara P. Callahan English
B.A., Wake Forest University; M.A.T., Converse College
- Thomas M. Callison English
A.B., Wofford College; M.A., Appalachian State University
- Aubrey Calton, Jr. Business
B.E.E., North Carolina State University; M.S.E.E., USAF Institute of Technology
- Steve L. Chrisman Business Extension Program Specialist
B.S., Carson-Newman College; M.A., Appalachian State University
- Treva Clayton Business
A.A.S., Isothermal Community College; B.T., Appalachian State University
- Susan Cole Assistant Director for Public Information
B.A., UNC-Charlotte; M.B.A., Appalachian State University
- Robert Conley Counselor/Director of Placement
A.A.S., Isothermal Community College; B.T., M.A., Appalachian State University
- Steve Coyne English
B.A., Catawba College; M.A.C.T., UNC-Chapel Hill

- Michael Croushore Physical Education
B.P.E., Purdue; M.A., University of Kentucky
- Rhonda Davis Word Processing
A.A.S., Isothermal Community College; B.T., Limestone College
- Betty G. Deviney Music
B.A., Columbia College; M.A.T., Duke University
- Royce Ellis Librarian
B.S., University of Denver; M.L.S., George Peabody
- John Foster Mathematics
A.A., Isothermal Community College; B.S., North Carolina State University; M.A.Ed., Western Carolina University
- Ben F. Fountain, Jr. President
A.B., M.Ed., Ph.D., UNC-Chapel Hill
- Clara Fowler Business
B.S., Barber-Scotia; M.A., Appalachian State University
- Charles Francis Counselor, Special Services
B.A., M.A.E.D., East Carolina University
- Ann Freeman Assistant Director for Development
- Betty Gabriel Special Services
B.S., Appalachian State University
- Deborah Gaddy Adult Basic Education Instructor
B.A., Western Carolina University
- Jim Garren Physical Education
B.S., M.A., Appalachian State University
- Janice Gilliam Cosmetology
Diploma, Henderson Beauty School; Cosmetologist License, N.C. State Board of Cosmetic Examiners; Licensed Cosmetology Instructor, N.C. State Board of Cosmetic Examiners
- James E. Graham Business
A.S., Paducah Jr. College; B.S., M.A., Middle Tennessee State University; M.S., University of Tennessee
- Herman Greene Learning Lab Instructor
B.S., Wofford; M.A., Furman University
- James L. Hall Mathematics
B.S., M.A., Appalachian State University
- Frances Haney Business
B.S., M.A., Appalachian State University
- Burton Harris Electrical Installation and
B.S., University of Tennessee Maintenance Instructor
- Carolyn Harrison Counselor/Director of Career
Development Center
RN, Massachusetts General Hospital; B.S., Catholic University of America; M.Ed., University of Maryland
- Donna Harrison Director, Special Services Program
B.S., Mars Hill College; M.A., Appalachian State University

Mary Ann Head B.A., UNC-Charlotte	Coordinator, Learning Lab
Wesley Henderson B.S., University of Mississippi; M.A., State University of New York	Social Science
Rosemary Hendrick B.A., Asbury College	Music/Coordinator of Planning
Diane Hoffbauer B.S., Mankato State University; M.S., State University College, New York	Special Services
Randall Hogg B.S., M.S., Indiana State University; Ph.D., University of Miami	Data Processing
Charles A. Holcombe, III B.A., High Point College; M.Div., Emory University	Director of Financial Aid
Wayne Hutchins A.B., Duke University; M.A.T., University of North Carolina	Science
Augusta M. Hyde A.A., Isothermal Community College	Assistant for Special Projects
Faye Johnson A.A.S., Isothermal Community College	Continuing Education Coordinator
Myra Johnson B.S.B.A., M.B.A., Western Carolina University	Cooperative Education
Catherine Jolley	Controller
Carol Jones B.S., Appalachian State University; M.S.B.E., UNC-Greensboro	Business
John Karriker A.B., Catawba College; Ph.D., University of South Carolina	Dean, College Transfer Division/Chemistry
Chris Koone B.S., Western Carolina University; M.B.A., Golden Gate University	Business
Dewalt Koone B.S., Western Carolina University; M.A., Appalachian State University	Mechanical Engineering
Karen LaBreche B.S.N., University of Victoria School of Nursing	Allied Health Coordinator, Continuing Education
Helen Lowery B.A., Limestone; M.A., Ed.S., Appalachian State University	Dean, Business Division
Lowery Luckadoo Certificate, Isothermal Community College	Welding
Norman Marks A.A.S., Isothermal Community College	Individualized Instruction
Cindy Martin A.B., M.A.T., UNC-Chapel Hill	Physical Education
James F. Martin B.S., M.S., Purdue University	Director of Maintenance/Security
Janice Matthisen B.S.N., UNC-Charlotte	Nursing

- William McDaniel Engineering
A.A., Isothermal Community College; B.S., Western Carolina University; M.I.T., Western Carolina University
- Fay McIntyre Evening Director
B.T., Appalachian State University
- Ralph McNabb Auto Mechanics
B.A., Lenoir Rhyne College
- Marion Michalove Director, HRD Program
B.S., Duke University
- Karen Moore Business/Industry
B.A., M.A., UNC-Charlotte
- Dillard L. Morrow Vice President for Administration
B.S., M.A., Western Carolina University; Ed.D., North Carolina State University
- Elizabeth Page Learning Lab Instructor
B.S., Wake Forest University
- Evelyn Parks Cosmetology
Diploma, Alamance Beauty College; Teacher Certificate, North Carolina State Board of Cosmetic Examiners; Cosmetologist License, North Carolina State Board of Cosmetic Examiners
- John F. Paul Vice President for Student Affairs
B.A., Cornell College; M.A., George Washington University
- Sheila Pleasants Academic Dean/Foreign Language, Polk Campus
B.A., Wake Forest University; M.Ed., Converse College
- Gordon Pyle Vice President, Polk Campus
B.A., University of Florida; M.A., University of Florida; Ph.D., Ohio University
- Chrystal Riviere Art
B.S., Meredith College; M.A.A.E., Appalachian State University
- William R. Rogers Social Science
B.S., M.A., University of Tennessee
- Tammy Schuler Adult Basic Education
B.A., Gardner-Webb
- Judith Shapiro Nursing
RN, New England Baptist Hospital School of Nursing; B.G.S., USC-Spartanburg
- Tom Sherman Director, Occupational Skills,
Continuing Education/Affirmative Action Officer
B.S., North Carolina State University
- Gary Shipley Science
B.S., M.A., East Tennessee State University
- Vivian Sitton Coordinator, Individualized
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B.A., M.A., Appalachian State University
- Eugene McKenzie Smith, Jr. Audiovisual Specialist
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- Walter Timm Dean, Vocational-Technical Division
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- Neilan Underwood Electronics
Electrical Technology, US Department of Education; US Air Corps Technical Institute, Refrigeration and Air Conditioning Training Corporation
- Ron Venhuizen Social Science
A.B., Hope College; M.A., Arizona State University
- Paula Walker Word Processing
B.S., Gardner-Webb College
- Bob Waters Cosmetology
Southeastern College of Beauty Culture; Dale Streble University of Cosmetology
- Teresa Webb Cosmetology
N.C. Academy of Cosmetic Arts; Instructor Training, Isothermal Community College
- Carl Williams Dean of Continuing Education
B.S., M.S., M.A., Louisiana State University
- Nancy Womack English
B.S., Western Carolina University; M.A., Florida Technological University
- Wilbur M. Wright Registrar/Director of Institutional Research
B.S., M.A., Appalachian State University



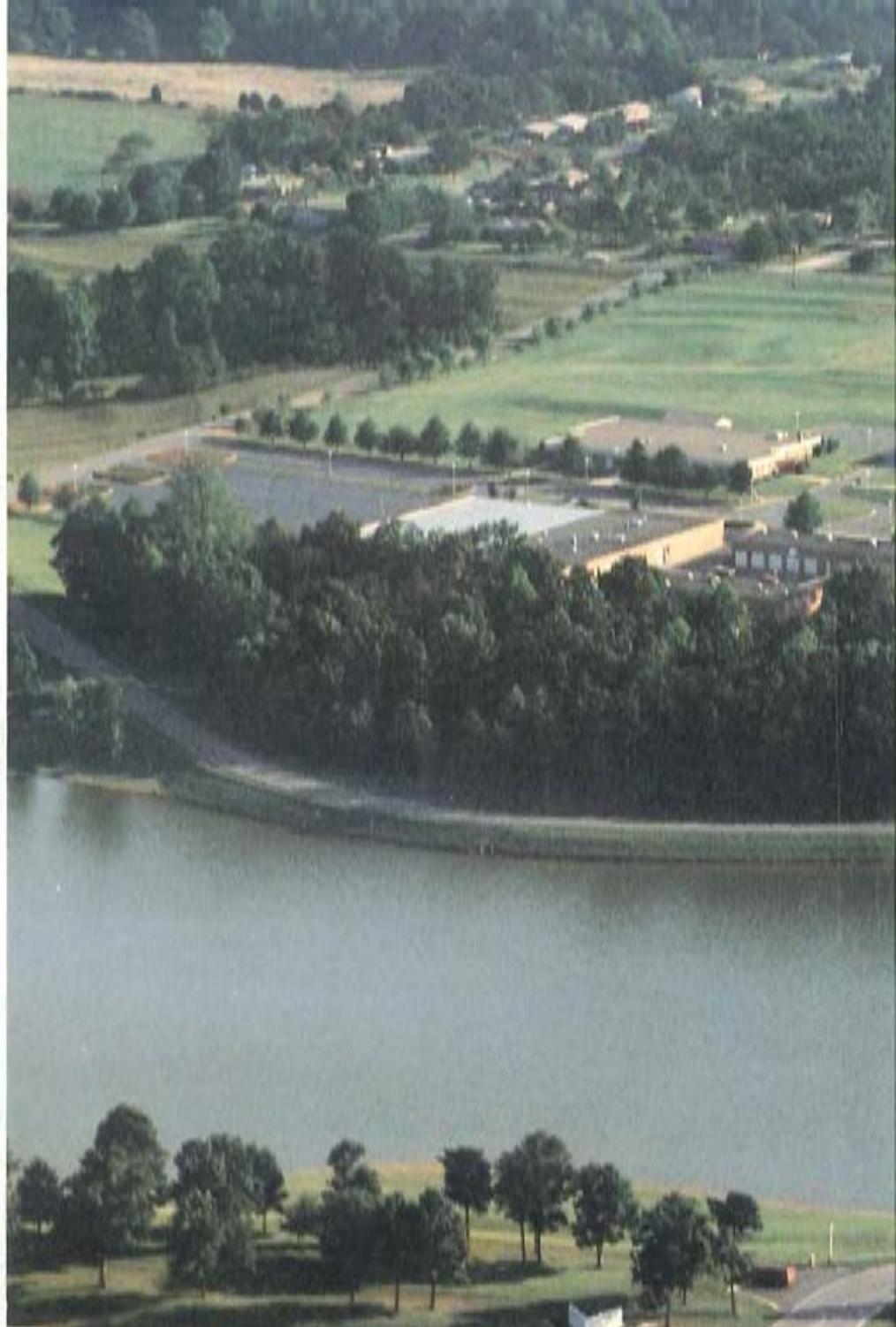
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