

**ISOTHERMAL**  
COMMUNITY COLLEGE

1995-1997  
CATALOG



### MESSAGE FROM THE PRESIDENT

It is a pleasure to welcome you to Isothermal Community College. For the past quarter century, it has been our privilege to provide a wide range of educational services for thousands of citizens from Rutherford and Polk Counties.

The philosophical foundation for this service remains unchanged. Isothermal Community College maintains that the opportunity for higher education should be available to everyone and recognizes that varying individual needs make a wide array of programs and services necessary. The diversity of our offerings will become evident as you review this catalog.

Less evident, yet perhaps even more important, is the climate of the institution which is created by its faculty and staff. Our faculty, staff and administration believe that students are their primary concern and are enthusiastic in providing the academic and personal support services that will help students reach their goals. The college is committed to excellence in teaching and service and strives to be an institution wherein each student has the opportunity to attain the highest level of his or her capabilities.

Welcome to Isothermal Community College.

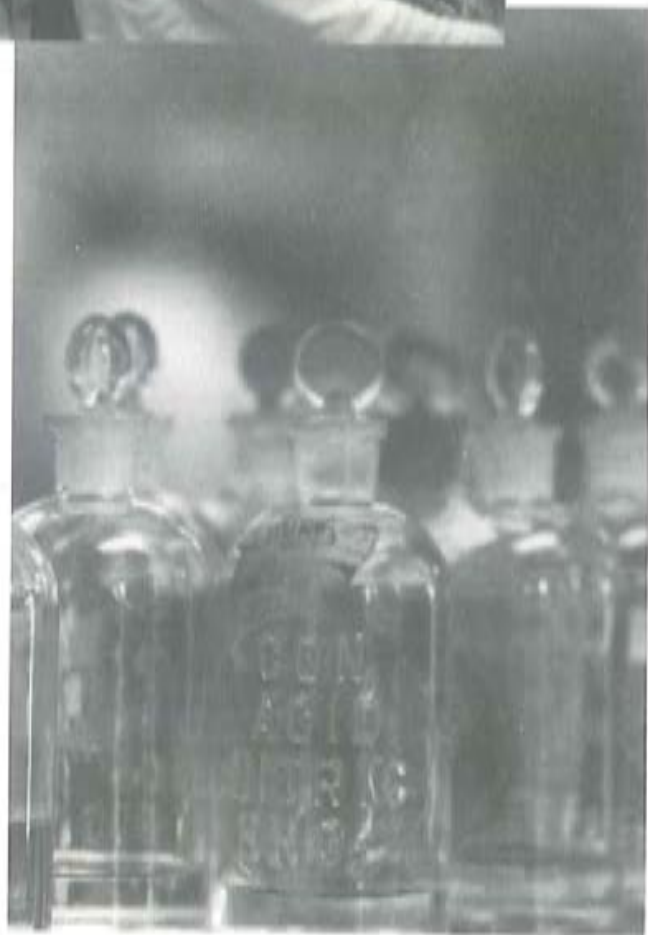
A handwritten signature in cursive script that reads "Willard L. Lewis".

Willard L. Lewis

## TABLE OF CONTENTS

Message From The President .....	2
Academic Calendar .....	5
Administrative Organization .....	9
Introduction .....	11
Accreditation .....	13
Library .....	14
Nondiscrimination Statement .....	14
Visits To The Campus .....	14
Admissions .....	16
Academic Procedures .....	20
Registration .....	20
Graduation .....	31
Student Affairs .....	33
Testing .....	35
Student Activities .....	37
Financial Assistance .....	40
General College Regulations & Policies .....	48
Communicable Disease Policy .....	48
Tuition & Fees .....	50
Continuing Education .....	53
Polk Campus .....	63
Curriculum Programs .....	66
College Transfer Programs .....	68
Technical Programs .....	88
Vocational Programs .....	134
Independent Study .....	149
Cooperative Education .....	149
Student Support Services .....	150
Course Descriptions .....	152
Administrators and Faculty .....	219
Index .....	223

*Although the editor of this catalog has made every reasonable effort to attain factual accuracy herein, no responsibility is assumed for editorial, clerical, or printing errors or errors occasioned by mistakes. The editor has attempted to present information which at the time of preparation for printing, most accurately describes the course offerings, faculty listing, policies, procedures, regulations, and requirements of the college. However, it does not establish contractual relationships. The college reserves the right to alter or change any statement contained herein without prior notice.*





## ISOTHERMAL COMMUNITY COLLEGE 1995-96 Calendar

### Fall Quarter 1995 (55 days)

August 30	Wednesday	Convocation Day
August 31	Thursday	Orientation & Registration
September 1	Friday	Advising and Schedule Adjustments
September 4	Monday	Labor Day Holiday
September 5	Tuesday	First Day of Classes
September 5,6	Tuesday,Wednesday	Schedule Adjustments
October 9-13	Monday-Friday	Mid Term
November 3	Friday	Last Day to Drop with "W"
November 16, 17, 20	Thursday, Friday, Monday	Final Examinations
November 21	Tuesday (11:00 a.m.)	Faculty Checkout
November 21-24	Tuesday-Friday	Thanksgiving Holidays

### Winter Quarter 1995-96 (55 days)

November 27	Monday	Orientation & Registration
November 28	Tuesday	First Day of Classes
November 28, 29	Tuesday, Wednesday	Schedule Adjustments
December 15	Friday (4:30 p.m.)	Winter Holidays Begin
January 2	Tuesday (8:00 a.m.)	Classes Resume
January 15	Monday	Martin Luther King Holiday
January 16-19	Tuesday-Friday	Mid Term
February 9	Friday	Last Day to Drop with "W"
February 26, 27	Monday, Tuesday	Final Examinations
February 28	Wednesday	Final Examinations
February 29	Thursday (11:00 a.m.)	Faculty Checkout

### Spring Quarter 1996 (55 days)

March 4	Monday	Orientation & Registration
March 5	Tuesday	First Day of Classes
March 5, 6	Tuesday, Wednesday	Schedule Adjustments
April 4	Thursday (10:00 p.m.)	Spring Holidays Begin
April 15	Monday (8:00 a.m.)	Classes Resume
April 15-19	Monday-Friday	Mid Term
May 10	Friday	Last Day to Drop with "W"
May 24, 27	Friday, Monday	Final Examinations
May 28	Tuesday	Final Examinations
May 29	Wednesday (11:00 a.m.)	Faculty Checkout
June 3	Monday (7:30 p.m.)	Graduation (Curriculum)
June 4	Tuesday (7:30 p.m.)	Graduation (Adult High School)

**Summer Quarter 1996 (50 days)**

June 4	Tuesday	Orientation & Registration
June 5	Wednesday	First Day of Classes
June 5, 6	Wednesday, Thursday	Schedule Adjustments
July 1-5	Monday-Friday	Independence Day Holidays
July 8-12	Monday-Friday	Mid Term
August 2	Friday	Last Day to Drop with "W"
August 20	Tuesday	Last Day of Summer School
August 21	Wednesday (11:00 a.m.)	Faculty Checkout

**1st Summer Session 1996 (25 days)**

June 4	Tuesday	Orientation & Registration
June 5	Wednesday	First Day of Classes
June 5, 6	Wednesday, Thursday	Schedule Adjustments
July 10	Wednesday	Last Day to Drop with "W"
July 1-5	Monday-Friday	Independence Day Holidays
July 16	Tuesday	Last Day of 1st Session

**2nd Summer Session 1996 (25 days)**

July 16	Tuesday	Registration
July 17	Wednesday	First Day of Classes
July 17, 18	Wednesday, Thursday	Schedule Adjustments
August 2	Friday	Last Day to Drop with "W"
August 20	Tuesday	Last Day of 2nd Session
August 21	Wednesday (11:00 a.m.)	Faculty Checkout

## 1996-97 Calendar

### Fall Quarter 1996 (55 days)

September 2	Monday	Labor Day Holiday
September 3	Tuesday	Convocation Day
September 4	Wednesday	Orientation & Registration
September 5	Thursday	Advising and Schedule Adjustments
September 6	Friday	First Day of Classes
September 6, 9	Friday, Monday	Schedule Adjustments
October 14-18	Monday-Friday	Mid Term
November 1	Friday	Last Day to Drop with "W"
November 19, 20	Tuesday, Wednesday	Final Examinations
November 21	Thursday	Final Examinations
November 22	Friday (11:00 a.m.)	Faculty Checkout
November 25-29	Monday-Friday	Thanksgiving Holidays

### Winter Quarter 1996-97 (55 days)

December 2	Monday	Orientation & Registration
December 3	Tuesday	First Day of Classes
December 3, 4	Tuesday, Wednesday	Schedule Adjustments
December 19	Thursday (10:00 p.m.)	Winter Holidays Begin
January 2	Thursday (8:00 a.m.)	Classes Resume
January 13-17	Monday-Friday	Mid Term
January 20	Monday	Martin Luther King Holiday
February 7	Friday	Last Day to Drop with "W"
February 27, 28	Thursday, Friday	Final Examinations
March 3	Monday	Final Examinations
March 4	Tuesday (11:00 a.m.)	Faculty Checkout

### Spring Quarter 1997 (55 days)

March 6	Thursday	Orientation & Registration
March 7	Friday	First Day of Classes
March 7, 9	Friday, Monday	Schedule Adjustments
March 27	Thursday (10:00 p.m.)	Spring Holidays Begin
April 7	Monday (8:00 a.m.)	Classes Resume
April 21-25	Monday-Friday	Mid Term
May 9	Friday	Last Day to Drop with "W"
May 28, 29	Wednesday, Thursday	Final Examinations
May 30	Friday	Final Examinations
June 2	Monday (11:00 a.m.)	Faculty Checkout
June 4	Wednesday (7:30 p.m.)	Graduation (Curriculum)
June 5	Thursday (7:30 p.m.)	Graduation (Adult High School)

**Summer Quarter 1997 (50 days)**

June 5	Thursday	Orientation & Registration
June 6	Friday	First Day of Classes
June 6, 9	Friday, Monday	Schedule Adjustments
June 30-July 4	Monday-Friday	Independence Day Holidays
July 7-11	Monday-Friday	Mid Term
August 1	Friday	Last Day to Drop with "W"
August 21	Thursday	Last Day of Summer School
August 22	Friday (11:00 a.m.)	Faculty Checkout

**1st Summer Session 1997 (25 days)**

June 5	Thursday	Orientation & Registration
June 6	Friday	First Day of Classes
June 6, 9	Friday, Monday	Schedule Adjustments
June 30-July 4	Monday-Friday	Independence Day Holidays
July 10	Thursday	Last Day to Drop with "W"
July 17	Thursday	Last Day of 1st Session

**2nd Summer Session 1997 (25 days)**

July 17	Thursday	Registration
July 18	Friday	First Day of Classes
July 18, 21	Friday, Monday	Schedule Adjustments
August 1	Friday	Last Day to Drop with "W"
August 21	Thursday	Last Day of 2nd Session
August 22	Friday (11:00 a.m.)	Faculty Checkout

**ISOTHERMAL COMMUNITY COLLEGE  
BOARD OF TRUSTEES**

**APPOINTED BY RUTHERFORD COUNTY BOARD OF EDUCATION**

Mr. J. Gordon Scott, III—Bostic, NC  
Mr. William T. Page—Rutherfordton, NC (2nd Vice Chairman)  
Mrs. Robert Spratt—Caroleen, NC—Secretary  
Mr. James T. Tanner—Rutherfordton, NC

**APPOINTED BY RUTHERFORD COUNTY COMMISSIONERS**

Mr. A. Jervis Arledge—Rutherfordton, NC  
Mr. Walter Dalton—Rutherfordton, NC  
Mr. Joe A. Miller—Cliffside, NC  
Mrs. Vivian G. Watson—Rutherfordton, NC

**APPOINTED BY THE GOVERNOR OF NORTH CAROLINA**

Mr. James R. Hutchins—Forest City, NC  
VACANT  
Burtchus R. Lathan—Spindale, NC  
Mrs. Charles H. Tucker—Mill Springs, NC

**APPOINTED BY THE POLK COUNTY COMMISSIONERS**

Dr. C.W. McCall—Tryon N.C.  
Mr. Howard Olson—Tryon, NC

**RUTHERFORD COUNTY BOARD OF COMMISSIONERS**

Mr. Russell Duncan	Mr. Aden Lynch
Mr. Franklin Goode, Chairman	Mr. Tony Helton
Mr. Robert Hawkins	

**POLK COUNTY BOARD OF COMMISSIONERS**

Mr. Benny Smith, Chairman	Mr. Carson Deck
Mr. Jesse Foy	Mr. Tim McCormack
Mr. Henry Huntsinger	

**ADMINISTRATIVE OFFICES**

**Office of the President**

Willard L. Lewis, III .....	President
Glenda Scruggs .....	Secretary to the President
Mary Burgin .....	Director of Development
Karen Jans .....	Public Information Officer
Karen A. Noel .....	Director of Institutional Effectiveness and Research
Fred J. Eason .....	President Emeritus



### **Office of the Vice President for Administration**

Dillard L. Morrow ..... Vice President for Administration  
Catherine Jolley ..... Controller  
Gene Green ..... Director, Plant Operations & Maintenance  
Martha M. Blackwell .... Administrative Assistant to the Vice Presidents

### **Office of the Vice President for Academic and Student Affairs**

Robert E. Harrison ..... Vice President for Academic and Student Affairs  
Helyn Lowery ..... Dean, Business Division  
Nancy Womack ..... Dean, College Transfer Division  
Donna Harrison ..... Director, Student Support Services  
Bruce Waddingham ..... Dean, Vocational Technical Division  
Wilbur Wright ..... Dean of Student Affairs  
Betty Gabriel ..... Director of Counseling  
Susan C. Monday ..... Admissions/Records Coordinator  
Edna Ann Silver ..... Financial Aid and Veterans Coordinator  
Kelly Metcalf ..... Admissions/Records Specialist  
Myra Woody ..... Financial Aid Technician  
Fred Bayley ..... Dean, Continuing Education  
Susan Vaughan ..... Director of Library  
James R. McCammon, Jr. .... Director of Business and Industry Services

### **Office of Director of the Polk County Campus**

Carole Bartol ..... Director, Polk County Campus  
Anna Gibbs ..... Administrative Assistant

## INTRODUCTION

### Historical Sketch

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 transfer (begun in September 1966) and adult education divisions were scattered in a number of temporary locations in Avondale, Spindale, and Caroleen. College transfer 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. On January 11, 1970, the College was accredited by the Southern Association of Colleges and Schools.

Expansion continued with a new Occupational Education Building opening. 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 which opened in September 1978, and the student center/physical education building which 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. In 1986 extension of the Business Education Building was completed and in 1988 the High Tech Building opened. WNCW, a college owned and operated public radio station, went on the air in October of 1989. The Maintenance Building, the last construction on campus, was completed in 1988; however, plans for establishing a continuing education facility with an auditorium are under way.

The Polk County Campus also progressed, beginning an independent study program and college transfer courses in 1976, and obtaining classroom space in the old Jervey-Palmer Building in Tryon. A permanent site for the campus became available in October 1982, when the Polk County Commissioners granted the college 10 1/2 acres near St. Luke's Hospital. This new site was dedicated on July 25, 1983. Construction of the new facility was completed in the fall of 1989.

Generous community support for the college has been evident in campus development as well as program support. A variety of student scholarships have been established as well as faculty recognition programs including Genesis grants and the Outstanding Teacher Award. In 1993 the Endowed Chairs program for meritorious performance and continued professional development was established in four Divisions.

Dr. G. Herman Porter was appointed Acting President on August 1, 1985, upon the retirement of Dr. Fountain and served in that capacity until Dr. Willard L. Lewis III assumed the duties of President on June 9, 1986.

## **Mission Statement**

Isothermal Community College, a member of the North Carolina Department of Community Colleges, is a comprehensive, two-year, public institution that serves Rutherford and Polk Counties. The college offers individual courses and certificate, diploma and degree programs that enable students to transfer to four-year institutions or to acquire skills for new or continued employment, as well as to function effectively as citizens in our society. In addition, the college provides training for area business and industry, personal enrichment courses, remedial and developmental courses and community service activities.

Isothermal Community College faculty, staff and administration believe that students are their primary concern. Because of this concern, the college provides programs, schedules, and academic and personal support services according to the diverse needs of its students. In order to assist students in realizing their personal, educational and professional goals, the college is committed to excellence in teaching and service and strives to be an institution wherein each student has the opportunity to attain the highest level of his or her capabilities.

Isothermal Community College shall be open to all eligible individuals who can benefit regardless of age, gender, socio-economic status, ethnic origin, race, religion or disability. The essence of the college's efforts shall be to contribute, in cooperation with other local educational systems and institutions, to a higher quality of life in the community it serves.

## **Accreditation**

Isothermal Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the Associate of Arts Degree, the Associate of Science, the Associate of Applied Science Degree, Diplomas and Certificates.

## **Office Hours**

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

## **General Class Hours**

In order to provide educational opportunities to the majority of the residents of Rutherford, Polk and contiguous counties, most academic programs are offered during both day and evening hours.

Day classes are normally scheduled from 8:00 a.m. through 4:45 p.m. Monday through Friday. Evening classes usually are scheduled from 5:30 p.m. through 10:15 p.m. Monday through Thursday evenings. A limited number of special classes are offered on Friday evening and on Saturday.



## **Library**

The library provides a variety of books, audio-visuals, and other materials to accommodate many kinds of learning. The collection supports and reflects the teaching/learning process for students and faculty; however, the local communities are welcome to use these resources as well. 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.-4:15 p.m. Friday

Holiday and Quarter Break Hours as Posted

## **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 Dean of Student Affairs to provide general information and a tour of the campus.

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

## **Nondiscrimination Statement**

Isothermal Community College is dedicated to equality of opportunity for its staff, students, and community. Isothermal Community College does not discriminate against eligible students, employees or applicants on the grounds of race, color, religion, age, gender, national origin, or disability. 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 Act of 1964, Equal Pay Act of 1963, Title IX of the 1972 Education Amendments, Executive Order 11246 as amended by 11375, Title VI (section 799A) and Title VIII (section 8451) 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:

Dr. Dillard Morrow  
Affirmative Action/Title IX Coordinator  
Isothermal Community College  
P.O. Box 804  
Spindale, NC 28160-0804



## Sexual Harassment Policy

Isothermal Community College is committed to providing and promoting an atmosphere in which employees realize their maximum potential in the workplace and students can engage fully in the learning process. Accordingly, sexual harassment by and of both employees and students is prohibited by this policy.

Sexual harassment is defined as deliberate, unsolicited, unwelcomed verbal and/or physical conduct of a sexual nature or with sexual implications. The definition does not include personal compliments welcomed by the recipient or relationships which are freely entered into by both parties.

Isothermal Community College, as part of its continuing Affirmative Action efforts, endorses the following:

1. It is illegal and against the policies of Isothermal Community College for any employee to sexually harass another employee by (a) making unwelcomed sexual advances or requests for sexual favors or other verbal or physical conduct of a sexual nature a condition of an employee's continued employment or (b) making submissions to or rejections of such conduct the basis for employment decisions affecting the employee or (c) creating an intimidating, hostile, or offensive working environment by such conduct.
2. It is against the policies of Isothermal Community College for any employee to sexually harass a student by (a) making unwelcomed sexual advances or requests for sexual favors or other verbal or physical conduct of a sexual nature a condition of a student's grade, progress, or recommendation or (b) creating an intimidating, hostile, or offensive learning environment by such conduct.
3. It is against the policies of Isothermal Community College for any student to sexually harass another student by (a) making unwelcomed sexual advances or by (b) creating an intimidating, hostile, or offensive environment by such conduct.

Sexual harassment shall be deemed a form of discrimination based on sex as prohibited by Section 703 of Title VII of the Civil Rights Act, and North Carolina General Statute 126-16 (in the case of employees) and Title IX of the Education Amendments Act of 1972 (in the case of students).

Employees of Isothermal Community College wishing to discuss a possible sexual harassment incident should contact the Affirmative Action/Title IX Coordinator.

Isothermal Community College students who have a complaint or grievance regarding sexual harassment should contact the Dean of Student Affairs.

## 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 and pass N.C. Competency Test. Exceptions are made in some vocational programs based on the age of the applicant (18 years of age or older). The following are specific requirements for each program.

#### College Transfer and Technical Applicants:

1. Complete an application for admission.
2. Official transcripts from high school and college (if applicable).
3. ASSET Placement Test.
4. Orientation Program with review of test scores and other helpful pre-registration information.

#### Vocational Applicants:

1. Complete an application for admission.
2. Official transcript(s) from high school and college (if applicable).
3. ASSET Placement Test
4. Orientation Program.

#### **Associate Degree in Nursing applicants are required to:**

1. Complete an application for admission.
2. Provide a minimum SAT score of 450 on verbal and 450 on math or a composite score of 17 on the ACT. If the applicant has not had the SAT or the ACT, they must take the ASSET Placement Test and complete the requirements, if necessary, prior to Fall quarter acceptance. Applicants may submit official college transcripts showing successful completion of comparable courses in math, algebra and English.
3. Provide an official High School transcript or GED Equivalency Certificate and official transcript(s) from previous education above the high school level.
4. Provide evidence of a basic high school or college course in biology, chemistry, and algebra with a grade of "C" or above prior to entering the program.
5. Obtain (3) references (other than family) and have them complete Isothermal Community College Reference Forms.
6. Must submit acceptable report of physical and mental examinations.
7. Must score satisfactorily on the PSB-Nursing School Aptitude Examination-R.N.
8. Must schedule an interview with Nursing faculty and a Student Affairs counselor.

**Practical Nursing** applicants are required to have a high school diploma or its equivalent and:

1. Complete an application for admission.
2. Take the ASSET Placement Test and complete the requirements, if necessary, prior to Fall quarter enrollment in the Nursing Curriculum and make satisfactory score on NET Test.
3. Provide a completed physical examination.
4. Obtain three (3) references (other than family) and have them complete Isothermal Community College Reference Forms.
5. Provide official high school transcript or GED Equivalency Certificate and official transcript(s) from previous education above the high school level.

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

**Child Care Worker Program** applicants are required to have a high school diploma or its equivalent and meet the requirements for vocational applicants.

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

**Veterans and Veterans' Dependents** receiving veterans' educational benefits must provide transcripts (high school and college, if applicable) of all education.

## **ADMISSION PROCEDURE FOR FOREIGN STUDENTS**

In addition to the general admission requirements, all students entering the country on a I-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;
3. to demonstrate the ability to support themselves for the entire period of stay in the United States while pursuing a full course of study. Documented evidence of these means is required.

## **TRANSFER ADMISSION REQUIREMENTS**

Transfer applicants must also meet the general admission requirements outlined above. Students transferring 30 quarter hours of credit from a regionally accredited post-secondary institution are not required to submit a high school transcript. Students transferring a grade of C or better in college English and math may be exempt from the placement test. Each applicant requesting transfer of credits from another institution will be

considered on an individual basis (see Transfer of Credit under Academic Procedures and Policies). All transfer students will enter the college with good academic standing. Once enrolled academic standing will be determined by grades on course work done solely at Isothermal.

### **TRANSIENT STUDENTS**

Transient Students who are enrolling at Isothermal Community College need only to submit an application to the Admissions Coordinator and a letter granting approval to attend Isothermal from the college they are attending or plan to attend.

### **CONDITIONAL ADMISSIONS**

Students are cautioned that unless all applicable supporting documents for admission are acknowledged by the Admissions Coordinator 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 one quarter from the day of registration or the student may be withdrawn from the College.

### **READMISSION**

Any student who has been suspended for disciplinary reasons from the College must submit a request for readmission to the Dean of Student Affairs.

### **SPECIAL CREDIT**

Students may enroll in the college as special credit students. These students will only be required to complete an application for admissions. However, their enrollment is restricted to courses that do not have a prerequisite that is determined by test scores. 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.

### **ADMISSION OF HIGH SCHOOL STUDENTS (DUAL ENROLLMENT)**

Isothermal Community College has an agreement with the Rutherford County Board of Education and the Polk County Board of Education to permit high school students to take college level classes for enrichment and advanced placement. Students enrolled in high school may be admitted to the College under two programs. The Dual Enrollment Program allows selected students to enroll with the approval of their high school



principal and the Admission Office. Students may also enroll under the Cooperative Agreement Program which is designed for the more advanced high school student. This program also requires the approval of the principal and the Admissions Office of the College. Students planning to enroll under either program must take the ASSET placement test before enrolling in math or English classes.

## DEVELOPMENTAL PLACEMENT POLICY

Degree seeking students entering Isothermal Community College in the College Transfer, Technical, and selected Vocational programs must complete one or more developmental courses in the areas of English, reading or mathematics as a result of any one of the following conditions:

1. A scaled score below the cut-off scores established by the college on any of the ASSET placement tests (Writing Skills, Reading Skills, Numerical Skills, Elementary, Intermediate, or College Algebra).
2. Referral by a faculty member to developmental courses when a student's work in curriculum courses demonstrates academic skill deficiencies in one or more of the areas of English, reading or mathematics.

Students should be encouraged to enroll in required developmental courses during the first quarter of their enrollment because of reading and writing requirements in college level courses.

Students who place into three (3) developmental courses will be limited to a twelve (12) credit hour class load. Any nondevelopmental courses must be approved by the students' advisor.

Transfer students who have completed college level or developmental courses in English, reading or mathematics with a grade of "C" or better will be exempted from placement testing in the area(s) they have completed.

Students must achieve a grade of "C" or better in required developmental courses to advance into college curriculum courses. Upon completion of the required developmental courses, students may enroll in the regular sequence of English and mathematics courses. Because credits for developmental courses are used as institutional credits only, they cannot be counted toward graduation. Developmental course credits determine course load for payment, eligibility for financial aid, and/or classification of a full-time student.

Any exceptions to the overall policy must be approved by the Director of Student Support Services.



## ACADEMIC PROCEDURES AND POLICIES

### Regulations and Requirements

In publishing these regulations, the College does not recognize any implied contract as having validity beyond the present academic catalog 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 catalog in force when he entered the College or in any one subsequent catalog published while he is a student, but the College is not obligated to fulfill this exception or to offer in any particular year a course listed in the catalog.

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 students, but it is not intended to constitute a complete list of all such regulations and requirements. Unless otherwise stated, these regulations uniformly govern the academic progress of the student from his first year in the College through the final quarter. It must be emphasized that the staff of the College will gladly assist 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 Academic Calendar at the front of this catalog. All students are required to register in accordance with the procedures 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 on an individual basis.

Registration Clearance—Students are responsible for obtaining registration clearance for unpaid fines or loans prior to registration. Students on academic probation or suspension must also have clearance.

### Auditing Courses

Students who wish to audit courses must register through the regular procedure. Audits 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. (See "Repeating Courses" page 27)

## **Student Records**

Isothermal Community College in the execution of its responsibilities to students, must maintain accurate and confidential student records. The Student Affairs Division has the responsibility for maintaining these records in accordance with existing state laws, college policy, and the Family Educational Rights and Privacy Act of 1974 as amended. Students are notified annually of their rights through the orientation and registration process.

**Student Academic Record.** The Admissions and Records Office will develop and maintain a permanent academic record for each curriculum student who enrolls in the college. This record will include name, address, social security number, date of birth, sex and major. The academic portion of the record will include courses taken, grades, hours attempted, hours earned, quality points, quality point averages, courses and credits transferred (if applicable), Dean's List, academic probation or suspension and degrees, diplomas or certificates earned. A transcript(s) of the official academic record may be released or obtained by the student upon written request to the Admissions/Records Office. An official transcript will not be released unless all tuition, fees and other obligations due the college have been satisfied.

**Educational Records And Privacy Rights.** Isothermal Community College accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to nor will the institution disclose any information from students' education records without the written consent of students except to personnel within the institution, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, to persons in an emergency in order to protect the health or safety of students or other persons, and to local educational agencies within their need to know. All these exceptions are permitted under the Act.

Within the institution only those members, individually or collectively, acting in the students' educational interest are allowed access to student education records. These members include personnel in the Offices of the Student Affairs Division (Admissions/Records, Financial Aid, Dean of Students and the Career and Testing Center) and academic personnel within the limitations of their need to know.

At its discretion, Isothermal may provide Directory Information in accordance with the provisions of the Act to include: student name, address, telephone number, date and place of birth, major field of study, dates of attendance, degrees, and awards received, the most recent previous educational agency or institution attended by the student, participation in officially recognized activities, and other similar information such as a photograph. Students may withhold Directory Information by notifying the Dean of Students (or designee) in writing within two weeks after the first day of class for any quarter.

The law provides students with the right to inspect and review information contained in their education records, to challenge the contents of their education records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if the decision of the hearing panel is unacceptable. The Dean of Students at Isothermal has been designated by the institution to coordinate the inspection and review procedures for student education records, which include admission, personal, academic, and financial files. Students wishing to review their education records must make written requests to the Dean of Students listing the item or items of interest.

Students **may not** inspect and review the following as outlined by the Act: financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment or job placement to which they have waived their rights of inspection and review; or education records containing information about more than one student, in which case the institution will permit access only to that part of the record which pertains to the inquiring student.

Students who believe that their education records contain information that is inaccurate or misleading, or is otherwise in violation of their privacy or other rights should contact the Dean of Students (or designee).

Students who believe that the adjudications of their challenges were unfair or not in keeping with the provisions of the Act may request, in writing, assistance from the President of the institution to aid them in filing complaints with The Family Educational Rights and Privacy Act Office (FERPA).

The above is a general statement concerning Student Records. The complete policy and the guidelines and procedures used to enforce the policy are located in the Student Affairs Office and may be examined upon request.

### **Program Changes**

Program or division changes should be initiated by the student through their advisor or the Admissions Office. In some cases these changes may be initiated by the Committee on Admissions and Academic Continuation or other college personnel.

### **Drop/Add**

In order to officially drop or add a course these steps should be followed:

1. Secure a Schedule Change form from the Division Secretary.
2. Have a Drop/Add approved by faculty advisor and instructor.
3. Record the Drop/Add in the computer at the division.

**NOTE:** Students will not be allowed to add or change sections after the deadline listed in the Academic Calendar and Quarterly Schedule book. Students may officially drop a course(s) without academic penalty and receive a grade of "W". However, this drop must be made before the drop deadline as published in the college calendar. The Vice President for Academic and Student Affairs may approve a drop after the deadline.

### **Withdrawal From College**

#### **All Official Withdrawals Must:**

1. Be made through the Division, Student Affairs or the Director of the Polk County Campus.
2. Be made in person if possible.
3. Be recorded by the Records Office to be official.
4. Receive a grade of "W". Students who leave class without officially withdrawing will receive a grade of "F" on all courses. See college calendar for last day to receive a "W".

**Withdrawal Date.** The official withdrawal date will be the exact date of the request for withdrawal.

### **Tuition Refund Policy and Procedure(s)**

#### **Tuition Refunds**

(1) A refund(s) shall not be made except under the following circumstances:

(A) A full 75 percent refund may be made upon request of the student if the student officially withdraws from the class(es) prior to or on the official 20 percent point of the class(es) or the 20 percent of the quarter if the student officially withdraws from the college. At the time the student officially withdraws under this policy, the college shall notify the student of the right to receive the refund. Requests for refunds will not be considered after the 20 percent point.

(B) For classes beginning at times other than at the beginning of the quarter, the same provisions set forth in Part (1) (A) of this program apply. For contact hour classes, 10 calendar days from the first day of class(es) is the determination date.

(2) To comply with applicable federal regulations regarding refunds to individuals or groups, federal regulations will supersede the state refund regulations stated in this rule. (3) Where a student, having paid the required tuition for a quarter, dies during the quarter (prior to or on the last day of examinations of the college the student was attending), all tuition and fees for that quarter may be refunded to the estate of the deceased.



## Procedures For Requesting A Refund

(1) Student must officially withdraw from class(es) using drop form with proper signatures (2) Drop(s) must be recorded in the computer data system. (3) Student must request refund through the Student Affairs Office using proper request form on or before 20% point of the quarter. (4) Refund will be mailed to student by the Business Office. (Also see page 54.)

## Academic Probation and Suspension

**Probation.** A student performing below the minimum satisfactory level as determined by the schedule below, will be placed on academic probation for the following quarter. **Suspension.** A student, at the end of the academic probation quarter, who's GPA falls below the minimum satisfactory level as outlined in the probation policy below will be suspended.

The Grade Point Average Schedule for the ASSOCIATE OF ARTS DEGREE, ASSOCIATE OF SCIENCE DEGREE, and the ASSOCIATE OF APPLIED SCIENCE DEGREE follows:

### Cumulative Qtr. Hrs.

Attempted	GPA
6-25	1.50
26-40	1.70
40-60	1.90
61-85	1.95
85-95	2.00
96-more	2.00

### FOR THE DIPLOMA PROGRAMS

Cumulative Qtr. Hrs. Attempted	GPA
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. Before re-entry, a student (one who has not enrolled for one quarter or more) must have a program of study approved by the Dean of Students or the Admissions Committee. The student may request or be asked to appear before the committee.

## Appeal

A student on academic suspension may appeal to the Dean of Students who 1) may approve re-enrollment 2) refer the student to a counselor 3) or refer the student to the Committee on Admissions and Academic Continuation who will act on the appeal. A student may appeal the committee decision to the president of the college.



## **Academic Probation and Suspension Policy for the Practical Nurse Education Program**

**Probation.** The Practical Nurse Education Program requires a 2.0 grade point average for all courses in the curriculum as the minimum satisfactory level. Any student receiving below a "C" in related courses, such as English or psychology resulting in less than 2.0 GPA, will be placed on academic probation for the following quarter. A 2.0 GPA must be obtained in the following quarter to remain in the program.

**Suspension.** A Practical Nursing student receiving a grade below a "C" in any nursing courses will be suspended from the program. Also, any student on academic probation that falls below the requirements outlined in the probation policy will be suspended.

**Re-Admission.** A student may be considered for re-admission or advanced placement based on availability of student space (up to 24) and their last completed quarter. Advanced placement forms obtained from student services are to be completed six weeks prior to the quarter they wish to enter. Transcripts from other colleges will be evaluated to determine course acceptance and appropriate placement. Any students failing a nursing course twice will be ineligible for re-admission.

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

**The Academic Probation and Suspension Policy for the Associate Degree Nursing Program may be obtained from the Nursing Department or the Dean of Students.**

### **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

<b>Academic Load</b>	<b>Maximum Hours</b>
College Transfer	19 credit hours
Vocational	21 credit hours
Technical	21 credit hours

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

## Class Attendance

Regular class attendance is a student obligation. The student is also responsible for all 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.

Instructors establish their own class attendance policy. This attendance policy is explained in detail at the first class meeting and includes the relationship of absences to grades.

Students who stop going to class without officially withdrawing will receive a grade of "F" at the end of the quarter.

## 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. One hour of credit is earned for each lecture hour per week. Where laboratory is required, one credit hour is earned for at least two contact hours. Where shop/clinical/practicum is required, one credit hour is earned for three contact hours.

The grading system is as follows:

Grade Significance		Grade Points			
A	Excellence	4	per	quarter	hour
B	Above Average	3	"	"	"
C	Average	2	"	"	"
D	Below Average	1	"	"	"
F	Failed	0	"	"	"
W	Withdrawn	0	"	"	"
I	Incomplete	0	"	"	"
Y	No Credit—Audit	0	"	"	"
S	Satisfactory	0	"	"	"
U	Unsatisfactory	0	"	"	"
P	*Progress	0	"	"	"
CE	Credit By Examination	0	"	"	"
DE	Diagnostic Examination	0	"	"	"
NS	No Show	0	"	"	"
CR	Transfer Credit	0	0	0	0
R	Repeat	0	0	0	0

An asterisk beside a letter grade indicates no credit or grade points for that course.

## **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 register 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 Dean.

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

## **Grade Appeals**

A student, after conferring with the instructor concerned, may present in writing to the division dean an appeal of a course grade. Appeals may not be made after the last day of classes of the next succeeding regular quarter. The division dean will refer the appeal to the Vice President for Academic and Student Affairs. A change of grade will not be made except as a result of the Vice President's decision, which is final.

## **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.

## **Repeating Courses**

Courses with earned grades of "D" or "F" may be repeated. Courses with earned grade of "C" or better may be repeated only by special permission from the Vice President for Academic and Student Affairs. When a course has been repeated the higher grade will be counted. Physical education credit classes may not be taken for a grade of "audit." Credit students may not receive more than five physical education credits. Exceptions for physical education majors may be granted by the Vice President for Academic and Student Affairs. Non-credit recreation classes offered through the Division of Continuing Education may be repeated at will. Courses taken as audit may be repeated for credit only. No course may be audited more than once.

## AWARDING OF CREDIT

### Transfer of Credit From Other Institutions

Educational work taken at a regionally accredited institution will be accepted. Credit will normally be allowed for applicable courses in which a grade of "C" or higher has been earned. Grades of "D" may be considered for transfer in sequence courses or special cases. In all cases the cumulative grade point average on all courses accepted must be at least 2.0 ("C" equivalent). Grades of previous enrollments will not be used in the grade point calculation of Isothermal Community College. Course work over fifteen (15) years old will be evaluated on an individual basis. Previous course work must be submitted on an official transcript sent directly to the Admissions Office from the transferring institution.

Transfer students must earn 50% of the credits required for graduation in their particular program at Isothermal Community College (see Graduation Requirements).

Course work taken at non-accredited institutions may be considered for credit on a course by course basis.

All transfer students will enter the college with good academic standing. Once enrolled academic standing will be determined by grades on course work done solely at Isothermal.

### Transfer of Credit Within the Institution

Vocational curriculum courses are not transferable to the Technical or College Transfer curriculums. Transferable technical curriculum courses are accepted into the College Transfer curriculum and Technical courses are accepted into the Vocational curriculum. College Transfer curriculum courses are transferable into the Technical and Vocational curriculums. Cumulative grade point averages are normally continued when changing programs within a curriculum but not when changing from program to program. (Example; College Transfer to Technical or to Vocational)

### Other Credit

Credit may also be given in the occupational areas for noncollegiate and military educational experiences. These experiences will be evaluated on the basis of the current editions of College Credit Recommendations and The Guide To Evaluation of Educational Experiences in The Armed Services. A maximum of 24 quarter hours may be awarded for these experiences. (Also see requirements for the Associate Degree for Vocational Instructor Program.)



## CREDIT BY EXAMINATION

Any student at Isothermal Community College can receive course credit by examination through one of the following three methods: 1) Challenge Exam, 2) CLEP Exam, or 3) Advanced Placement Exams.

### Challenge Exam:

Any student may petition through the Division Dean 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 Dean's office may be challenged. The procedures for challenging is as follows:

1. The student must be registered for the course, have paid proper tuition, and have approval of the instructor.
2. If the exam is failed, the student must continue the course.
3. A course may be challenged only once and must be done during the first week of class.
4. If the exam is passed, the student's grade must be submitted to the Registrar's Office during the first two weeks of the quarter. This grade will be recorded as a "CE".

### CLEP Exam:

A student can also receive course credit through the College Level Examination Program. These exams were designed for persons who have gained knowledge through experimental learning or personal study and



have not yet received college credit for their learning. The student must make arrangements to take the exam and have the score sent to the Registrar (contact the Career Center in Student Affairs for Test applications and information on Testing Centers). Credits will be given only for subject examinations, not for the general examinations, and then only according to the following chart showing the minimum score and credit hours received or given examination.

### CLEP CHART

Exam	Minimum Score for awarding Credit	ICC Course(s) Comparable	Quarter Hours Credit
Accounting Introduction	47	BUS 21, 211, 212	12
Afro-American History	49	HIS 170	3
American Government	47	POL 260	3
American History	46	HIS 260, 261, 262	9
American Literature	46	ENG 253	3
Biology, General	46	BIO 151, 152, 153	12
Calculus, with Elementary Functions	47	MAT 161, 162, 163	15
Chemistry, General	47	CHM 101, 102, 103	12
College Algebra	45	MAT 151	5
Trigonometry	50	MAT 152	5
College Algebra & Trigonometry	45	MAT 151, 152 or 153	10
College Composition	47	ENG 151, 152, 153	9
College French Level I	41	FRE 160, 161, 162	9
*Level II	53	FRE 260, 261, 262	9
College German Level I	40	GER 160, 161, 162	9
*Level II	48	GER 260, 261, 262	9
College Spanish level I	41	SPA 160, 161, 162	9
*Level II	50	SPA 260, 261, 262	9
Computer & Data Processing	47	CSC 151, or CAS 101	3
English Literature	46	ENG 251,252	6
Freshman English	47	ENG 151, 152, 153	9
Marketing	47	MKT 120	4
Macroeconomics, Intro	48	ECO 201, 202, 203	9
Microeconomics, Intro	47		
Psychology, General	47	PSY 260	3
Sociology, Intro	47	SOC 160	3
Statistics	49	MAT 170	5
Western Civilization	50	HIS 151, 152, 153	9

\*If Level II of a Foreign Language is taken without Level I then credit for both levels, (i.e., 24 quarter hours) will be awarded if the necessary minimum score is attained.

### Advanced Placement (AP) Examination

If a student has taken Advanced Placement courses in high school and the respective exam, with a grade of (3) or higher on the exam, then he can receive college credit for that score. (Example: A score of at least 3 on the biology AP exam would entitle a student to receive 12 quarter hours credit for BIO 151, 152, 153.)

### **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 during the quarter and maintain a 4.0 grade 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 grade point average for the quarter.

## **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.

### **Course Substitutions**

Course substitutions may be approved to fulfill graduation requirements provide the substitution is appropriate to the student's program and a comparable course(s) if offered. In all cases course substitutions must be consistent with the program requirements as outlined in the Curriculum Standards published by The Department of Community Colleges. Each student is limited to twelve (12) credit hours of substitutions; however, cases where courses have been discontinued additional substitutions may be approved. All course substitutions must be approved by the Division Dean and the Vice President for Academic and Student Affairs and recorded in the Records Office.

### **Graduation Procedures**

Students are expected to file graduation applications with the Records 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 front of this catalog. All students who have completed degree



requirements since the previous commencement are expected to participate in the exercises. Diplomas must be ordered through the bookstore.

### **Graduation With Honors**

Students who complete a degree or diplomas program with a grade point average of 4.0 will be graduated with High Honors. The student who earns a grade 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 handled through the bookstore. Notices will be posted relevant to dates for measurements. Student 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 of the student while attending the College. The College will not release an official transcript unless all tuition, fees, and other obligations due the College have been cleared.

Transcript(s) will not be released without the written consent of the student. (See section entitled Student Records)

## **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. They receive certificates suitable for framing and become eligible for placement service when they seek employment.

## STUDENT AFFAIRS

### Mission

The Student Affairs Division plays an important role in implementing the mission of Isothermal Community College. A professional staff, varied programs and services are provided by the division to assist students in achieving their goals. The mission of Student Affairs is to maximize student success by providing the leadership, coordination and management necessary to ensure that the Student Affairs functions are used as effectively as possible to help students identify, pursue, and achieve their individual goals. All programs and services are open to those who can benefit regardless of age, sex, socio-economic status, ethnic origin, race, religion, disability or handicap.

### Goals

1. To provide a comprehensive organizational setting from which to administer all of the functions of the Student Affairs Division.
2. To provide adequate human, physical, and financial resources needed to meet the goals of the division and the institution.
3. To provide programs and services which enhance the quality of student life and contribute to the attainment of students' educational goals.
4. To develop a planning process that includes a periodic review of the mission, goals, programs, and services.

### 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 Affairs Building, the attractive Center embodies a lounge, game room, television area, and dining area where food service is available. Offices for the Student Government Association and Yearbook are also located in this area.

### Orientation

Orientation of all new students is a major goal of the Student affairs division. the Orientation Program is composed of a series of activities involving administration, faculty, staff, and students. These activities introduce students to the services and resources available at the college, provide information, answer questions and, in general, help solve problems normally faced by students.

Orientation activities include Pre-Enrollment Programs (PEP Groups) led by the Director of Counseling after ASSET testing on campus and in area high schools. In addition, all new students are required to participate in an Orientation Program which is scheduled twice each Registration Day and once during the summer.

The Orientation process is further extended for all full-time technical and college transfer students who are required to take ORI 100: Student Orientation Seminar.

## **Counseling, Career Development and Testing Center (CCDT)**

### **Counseling**

Counseling services at Isothermal Community College are provided by the Student Affairs Division and are available to the total institution and its communities in its 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 development of self-management skills, self-concept building, educational planning, and improvement of interpersonal relationships.

A counselor is available in the Student Services Building from 8 AM to 9 PM Monday and 8 AM to 4:30 PM Tuesday through Friday. Students may call 286-3636, ext. 244 for an appointment, or they may drop in to talk with a counselor.

### **Career Development**

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

- A Career Resource Area staffed by a Counselor Associate and secretary.
- A Career Development Counselor qualified to help individuals assess and understand their abilities, aptitudes, and interests in the process of career decision-making.
- Interest testing:
  - Strong Interest Inventory: Cost \$5.00. Uses 325 items to measure person's interest in a wide range of occupations, leisure activities, hobbies, school subjects, and types of people.
  - Self-Directed Search: Provides an extensive personalized report that includes a comprehensive list of careers.
- TIPS: A computerized instructional system for teaching job search, employability, and life skills.
- "Please Understand Me": A computerized program that provides insight into temperament with a printout report.
- Career information: Books, film strips, videos, and cassettes related to job search preparation, interviewing, negotiating job offers, and self-help.
- Undergraduate and graduate information: catalogs and applications.

- Transfer information: Course equivalencies, transfer agreements, NC Transfer Counselors' Network.
- Mini-workshops
  - Interest inventory assessment
  - Brain dominance theory
  - Study skills
  - Resume writing and interviewing skills
  - Communication skills

For more information students may call ext. 266 or visit the CCDT Center which is located off the lounge of the Student Services Building, Room 18.

## Testing Services

### Placement Testing:

ASSET is a testing/advising program designed to gather information about a student's skills, needs, and plans as an important step in developing and implementing a sound program of study. ASSET identifies basic skill levels of students in reading, English, and mathematics.

The following are required to take ASSET:

- College Transfer, Technical and Vocational Program applicants.
- Basic Law Enforcement Training (BLET) applicants either prior to enrollment or during their first quarter of enrollment.
- Dual enrollment students from area high schools registering for English and/or math classes.
- Area high school students enrolled in calculus under the Huskins Bill Cooperative Agreement.
- Students without a high school diploma who have to prove "ability to benefit."

A student transferring from another institution who has successfully completed a freshman English, reading, basic math or algebra course is exempt from placement testing in those areas. If applicants tested prior to the adoption of ASSET in September 1990 have not enrolled in and successfully completed English and/or math classes, their test scores are invalid. ASSET test scores are valid for five years.

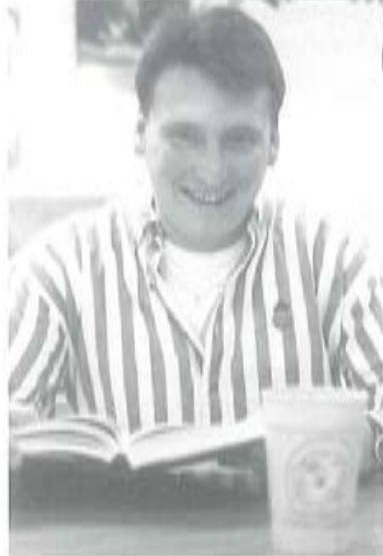
Counselors, faculty, or staff discuss test results, course placement, and college resources immediately following testing or during Pre-Enrollment Programs on Orientation/Registration Day.

Prior to each quarter, a schedule of test dates is available, and prospective students may call extensions 244 or 266 for further information. No fee is charged for ASSET testing.



### GED Testing:

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 is awarded upon satisfactory completion of a series of tests in Writing Skills, Social Studies, Science, Literature, and Math. Testing schedules are available in the Learning Place and Career Center. Appointments must be made in advance (286-3636 ext. 244).



## **Job Placement**

The Employment Security Commission representative, located in the Career Center, provides job referral services to Isothermal students and graduates on Tuesdays and Thursdays from 8AM to 12 Noon.

In addition, the Career Center and instructional staff in each division, in conjunction with the Employment Security Commission representative, assist students as requested.

## **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 are taken to the emergency room of the Rutherford Hospital, Inc. The student is responsible for all costs incurred in such treatment.

Students are encouraged to provide themselves with medical insurance to cover illness/injury. Insurance covering accidents at the College or enroute to or from the College is available.

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

## **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.

## **Student Activities**

The College encourages student participation in student organizations and activities. A member of the Student Affairs staff is assigned the responsibility of coordinating all student activities and serves as the SCA advisor.

The following are available on campus:

Student Government Association. (S.G.A.) 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 Officers are active in promoting the interests of the students, improving facilities, planning social functions, and assisting student organizations.

The S.G.A. 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  
Baptist Student Union  
CARDS  
Child Care Club  
College Singers  
Collegiate Secretaries International  
Cosmetology - Day  
Cosmetology - Evening  
Electronics Engineering Club  
Intramurals  
Isotones  
Karate Club  
Nursing Club  
Phi Beta Lambda  
Phi Theta Kappa  
Publications — Ripples (Yearbook)  
                          Patriot (Newspaper)  
                          Anuran (Poetry Magazine)  
Student Practical Nurses' Club  
Students of Free Enterprise  
Video Ventures Club  
SCHOOL COLORS: Blue and White  
SCHOOL MASCOT: Patriot

#### **Student Publications—Purposes and Responsibilities**

The purpose of the **Patriot**, the Isothermal student newspaper, is to communicate and integrate new ideas within the college community; increase awareness of current issues facing the campus; create a published forum which encourages input from students and staff; and provide an opportunity for those students enrolled in the course to learn and practice high levels of reporting, writing, photojournalism, and lay-out design.

The purpose of **Ripples**, the Isothermal student magazine, is to record photographically the developments of each school year and to profile selected programs and campus personalities. It also serves as a fine teaching tool for students interested in pursuing a career in journalism or publishing.

The purpose of the **Anuran**, is to fulfill the expectations of an exceptional, annual literary journal. It is designed as a published collection of poems

and essays, the culmination of a yearly poetry and essay contest drawing on the talents of Isothermal and the communities which it serves.

All these publications of Isothermal Community College must abide by state and federal laws governing proper journalistic behavior as well as local college regulations.

The college's responsibilities to student publications include the following:

1. To provide fiscal support necessary for materials, supplies, equipment, and printing.
2. To provide an appropriate work space.
3. To make arrangements for responsible, qualified faculty/professional sponsors to oversee student work.

### **Veterans Affairs**

Isothermal Community College is approved by the North Carolina State Approving Agency for the enrollment of persons eligible for educational assistance benefits from the U.S. Department of Veterans Affairs (VA). Persons eligible and entitled may enroll in programs approved by the N.C. State Approving Agency. Application for DVA educational benefits may be made in the Veterans Affairs office on campus. A certified copy of Form DD 214 is required. All students receiving educational benefits must have an official high school transcript and official transcripts from previous colleges sent to the Admissions Office. These transcripts must be on file and evaluated before the student can be certified for benefits.

When a student enrolls in an approved program of study, he or she must pursue the exact curriculum in the school catalog. Individualized studies classes are not approved by the State Approving Agency for educational benefits.

Payments for educational benefits are based on a student's classification according to his/her CREDIT HOURS per quarter as follows:

Full time .....	12 or more quarter hours of credit
2/3 time .....	9-11 quarter hours of credit
1/2 time .....	6-8 quarter hours of credit

Veterans and other eligible persons certified for Veterans Affairs Educational Benefits who fail to maintain satisfactory progress as defined in the Academic Probation and Suspension Section of this catalog, will have their DVA educational assistance benefits terminated.

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



Veterans and other eligible individuals should visit the Student Affairs Office as early as possible for the purpose of making application. The Veterans Affairs Coordinator will review the application and submit the required Certificate of Enrollment.

## **STUDENT FINANCIAL AID**

Isothermal Community College offers a comprehensive program of financial aid for students who, without such aid, would be unable to continue their education. Assistance is provided in the form of grants, part-time employment, loans and scholarships. Financial aid awards may include one or more of these. Most financial assistance is awarded on the basis of need. In determining the student's need, it is assumed that the student and/or the student's family will provide assistance in an amount proportionate to their income and assets. Financial assistance from the institution is intended to be supplementary to the efforts of the family.

### **How to Apply for Financial Aid**

1. Submit a completed application for admission to the college. Submit official transcripts of credit from all secondary and postsecondary schools attended. Take the placement tests administered by the college.
2. Complete and mail the Free Application for Federal Student Aid which is circulated by the U. S. Department of Education. It will take the federal processor approximately four - six weeks to generate and mail a Student Aid Report.
3. Submit all three copies of the Student Aid Report (SAR) to the Financial Aid Office. The report, which is developed from information entered on the Free Application for Federal Student Aid, is mailed to the student's address. It is the student's responsibility to bring the SAR to the Financial Aid Office.
4. Submit a completed Isothermal Community College Application for Financial Aid.
5. Provide signed copies of student/parent federal tax returns, along with all applicable W-2 forms. Additional supporting information may be requested.
6. Submit a Financial Aid Transcript from each postsecondary school that you have attended previously.
7. Request and submit applications for other aid programs in which you feel you can establish eligibility. A number of financial aid programs require separate applications. Please note these under the "Types of Aid Available" section.

Further information regarding application procedures, as well as applications, may be obtained from the Isothermal Community College Financial Aid Office. The Free Application for Federal Student Aid forms are also

made available through high school guidance offices. All students enrolled or accepted for enrollment may apply for aid. **Applications must be filed annually for an academic year (September thru August).** It is recommended that the Student Aid Report be submitted by June 1 preceding fall enrollment at the college. For winter, spring, or summer term enrollment, Student Aid Reports should be submitted twenty-eight calendar days prior to the beginning of the term. In order to be considered for the North Carolina Student Incentive Grant, the application must be submitted by March 15 preceding fall enrollment. Funding for many programs is limited. Late applicants may find that many funds are obligated. An enrolled student must reapply in order to receive aid during the second year of attendance.

### **Eligibility for Aid**

The basic eligibility requirements for federal student financial aid require that the applicant:(1) be a U. S. citizen or eligible noncitizen, (2) have a high school diploma, GED, or demonstrate ability to benefit,(3) be registered with Selective Service (if required), (4) be enrolled as a regular student in an eligible program, (5) be making satisfactory academic progress, (6) not be in default or owe a refund on a Federal grant or Federal education loan, and (7) have financial need.

Financial need, defined as the difference between a family's resources and the total expense of attending the college, is calculated by a national processing center. In determining the student's need, the federal government assumes that the student and/or the family of the student has the primary responsibility for paying postsecondary educational costs. To establish initial eligibility, a student will be required to verify or document taxable income, federal income taxes paid, untaxed income, number in the household, number attending postsecondary institutions, and independent student status.

### **Types of Aid Available**

#### **Federal Pell Grant**

The Pell Grant is a federally sponsored aid program for low-income families. It is intended to be the first and basic component of a financial aid package. The grant, which does not have to be repaid, is based on schedules and formulas approved annually by Congress.

Undergraduate students who have a Bachelor's degree are not eligible for Federal Pell Grants.

#### **Federal Supplemental Educational Opportunity Grant (FSEOG)**

The FSEOG program provides aid to the neediest students with demonstrated financial need, with priority awarded to Federal Pell eligible recipients. Any student who completes the Free Application for Federal Student

Aid applies for this grant. The number of grant awards is based on the availability of funds at the College. Repayment is not required. Undergraduate students who have a Bachelor's degree are not eligible for Federal SEOG's.

#### **North Carolina Student Incentive Grant (NCSIG)**

Full-time students who are legal residents of North Carolina may apply for the NCSIG. These grants are awarded by College Foundation, Inc., Raleigh, NC. Students must demonstrate substantial financial need. Application is made on the Free Application for Federal Student Aid by giving the U. S. Department of Education permission to send financial information to the financial aid agencies in N.C. The deadline for the NCSIG is March 15 preceding the academic year. Repayment is not required.

#### **Federal Work Study (FWS)**

The Federal Work-Study program is a federal program which provides part-time jobs on campus for needy students. Students are employed for up to 15 hours per week and receive a monthly paycheck. Applicants for work-study must first apply for the Pell Grant, as well as apply for work-study on the institutional financial aid application. A limited number of jobs are available in the program. Some of the jobs give students the opportunity to perform community services. Community services are designed to improve the quality of life for community residents, particularly low-income individuals, or to solve problems related to their needs.

#### **Federal Family Education Loan Program (FFELP)**

The FFELP is a program that provides a means for eligible students to borrow funds. To be considered for the loan, students must first apply for and receive a determination of eligibility or ineligibility for a Pell Grant. Second, they must complete a loan application. Applications are available in the Financial Aid Office. Maximum yearly loan limits are established by the federal government. Repayment is required to begin no later than six months following graduation, withdrawal from college, or termination of at least half-time study. The amount borrowed, plus interest, must be repaid.

#### **North Carolina Prospective Teachers Scholarship Loan (NCPTSL)**

North Carolina residents preparing to teach in public schools within the state are eligible to apply. For each full school year a recipient teaches in North Carolina public schools, one year of the loan amount and the accrued interest is forgiven. Applications may be obtained from the Financial Aid Office or from NCPTSL, N.C. Dept. of Public Instruction, 116 W. Edenton St., Raleigh, NC 27603-1712.

### **Nurse Education Scholarship Loan Program (NESLP)**

North Carolina residents enrolled in a nurse education program who plan to obtain full-time employment as a nurse in North Carolina are eligible to apply. For each six months of employment as a nurse, a portion of the recipient's obligation will be cancelled. All PNE and ADN applicants who are accepted in the nursing program and who apply for federal student aid are considered.

### **J. D. Cooley Technical Education Loan Fund**

Students enrolled in an approved technical program may apply for this loan. A first-year student must have a 2.0 average or better in their high school studies. A second-year student must have maintained a 2.7 GPA in their studies at ICC. Applicants are required to complete a loan application. Repayment is required.

### **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 students to continue their education. A minor financial crisis generally is defined as needing money for books, an unpaid medical bill, or a car repair. The maximum loan amount is \$100.00. Applications may be obtained from the Student Affairs Office. Documentation is required. Emergency loans must be repaid.

### **Scholarships**

A number of scholarships are available to Isothermal Community College students. Criteria for selection most often include academic promise/standing and financial need. Other special requirements may be set by the donor. For on campus scholarships, college personnel participate in the selection of recipients. Students do not usually apply for specific on-campus scholarships; instead, application is made by completing the FAFSA as discussed in "How to Apply for Financial Aid". Scholarships do not have to be repaid.

Off campus scholarships, defined as scholarships in which college personnel do not participate in the selection of recipients, are awarded to Isothermal Community College students each year. Students interested in applying for these scholarships must contact the grantor. The Financial Aid Office has information about many off campus scholarships.

Listed below are on campus scholarships which are usually available:

Jack E. Buchanan Scholarship\*

T. D. Carson Scholarship

Robert W. Conley III Memorial Scholarship



Dr. W.M. Elliott Scholarship  
First Union/Jack Buchanan Scholarship\*  
A.J. Fletcher Music Scholarship  
Charles A. Holcombe Scholarship  
Isothermal Community College Alumni Scholarship  
William V. Lee Memorial Scholarship\*  
Lovelace Nursing Scholarship  
G. K. McClure Educational Fund\*  
James Monroe McDonald Memorial Scholarship  
W. H. "Shorty" McDonald Scholarship  
Dillard L. Morrow Sentinel Scholarship  
N.C. Department of Community Colleges Scholarship  
Lee L. Powers Scholarship  
Putnam Scholarship  
Ruppe Bible Class-Forest City First Baptist Church  
Southern Bell Telephone and Telegraph Scholarship  
Robert R. Spratt Memorial Scholarship  
Wachovia Technical Scholarship  
Frank and Mabel West Scholarship\*  
Dr. J. F., Sr. and Ola H. Whisnant Scholarship

\*An institutional scholarship application is required for these scholarships. Contact the Financial Aid Office for applications, as well as information regarding eligibility requirements and application deadlines.

### **Job Training Partnership Act**

The Job Training Partnership Act provides funds to students who are enrolled in a Technical or Vocational Program. Eligibility is determined by JTPA income guidelines and other criteria. Funds may be provided for one or more of the following: books, travel, needs-based allowance, tuition, and fees. A limited number of openings are available. Required applications may be obtained in the HRD Office and at the Polk County campus.

### **Vocational Rehabilitation**

The N.C. Division of Vocational Rehabilitation also offers financial assistance to eligible students. In order to qualify, a student must have a mental or physical disability which is a handicap to employment. There also must be reasonable expectation that as a result of vocational rehabilitation services, the person becomes gainfully employed. Each rehabilitation program is designed individually with the student. The amount of the award is based on need and the type of program in which the student is enrolled. It generally pays for tuition and fees and for some books and supplies. In some cases, supportive services such as interpreter services, attendant services, and transportation may be provided. To apply, the student should contact the Vocational Rehabilitation office nearest his home.

## Satisfactory Academic Progress Standards for Financial Aid Recipients

Federal law requires students receiving federal student aid to maintain satisfactory academic progress as defined by the institution. Federal student aid includes the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Work Study, Federal Stafford Loan, and North Carolina Student Incentive Grant.

Satisfactory progress is defined as meeting two requirements: (1) The student must maintain a cumulative grade point average at or above the minimum in chart A below. GPA requirements must be met quarterly. (2) The student must successfully earn the minimum number of hours shown in chart B-1, B-2, or B-3 below. This requirement will be monitored at the end of each spring quarter.

### Chart A - GPA Requirements

Credit Hours Attempted	Minimum GPA
6 - 25	1.50
26 - 40	1.70
41 - 60	1.90
61 - over	2.00

### Chart B-1: Minimum Credit Hours Required - College Transfer

Enrollment Status	Earned Hours Required Each Academic Year	Average Earned Hours Per Quarter
Full - time (12 hrs. +)	24	8
3/4 - time (9 - 11 hrs.)	18	6
1/2 - time (6 - 8 hrs.)	12	4
Less than 1/2 (1-5 hrs.)	50% att hrs	50% att hrs

### Chart B-2: Minimum Credit Hours Required - Technical

Enrollment Status	Earned Hours Required Each Academic Year	Average Earned Hours Per Quarter
Full - time (12 hrs. +)	27	9
3/4 - time (9 - 11 hrs.)	21	7
1/2 - time (6 - 8 hrs.)	15	5
Less than 1/2 (1-5 hrs.)	50% att hrs	50% att hrs

### Chart B-3: Minimum Clock Hour Required - Vocational

Enrollment Status	Earned Hours Required Each Academic Year	Average Earned Hours Per Quarter
Full - time (12 hrs. +)	24	8
3/4 - time (9 - 11 hrs.)	18	6
1/2 - time (6 - 8 hrs.)	12	4
Less than 1/2 (1-5 hrs.)	50% att hrs	50% att hrs

**NOTE:** Enrollment status will be determined by the number of hours in the student's program of study for which he/she is enrolled at the end of the

schedule adjustment period each quarter. Hours will not be counted for enrollment if the student is a "no show" in the class or audits the class.

Grades of A, B, C, or D will be counted as earned hours. Grades such as F, I, W, P, Y, and NS will not be counted as earned hours.

**Exception:** A grade of P in ENG 090, MAT 090, MAT 095, RED 085, and RED 090 will qualify as hours earned provided that: (1) the remedial coursework is recommended by placement testing; and (2) the student is taking the remedial course for the first or second time.

### **Financial Aid Probation**

Any student who fails to meet the requirements (in chart A) will be placed on Financial Aid Probation. He/She can receive financial aid for one more quarter of enrollment, consecutive or otherwise. If the student fails to meet the minimum GPA requirement at the end of the probationary quarter, he/she will be placed in Unsatisfactory Progress Status, and all aid will be cancelled.

Failure to meet the minimum credit or clock hour requirement (in chart B-1, chart B-2, or chart B-3) places the student directly into Unsatisfactory Progress Status. She/he may attend summer school, at her/his own expense, to earn the necessary number of hours to be considered for financial aid.

**Exception:** A student who has attended only one quarter during the academic year will not be placed directly into Unsatisfactory Progress Status. He/she will have one more quarter, consecutive or otherwise, to receive financial aid and earn the required number of hours.

### **Unsatisfactory Progress Status**

Unsatisfactory progress occurs when financial aid recipients fail to meet the Standards of Satisfactory Academic Progress as defined. While in unsatisfactory progress status, a student will have his/her financial aid terminated.

### **Procedure for Reinstatement**

Students who have had their aid terminated for unsatisfactory progress may reestablish eligibility for financial aid in one of two ways: (1) By the appeals process, if approved by the committee. (2) By enrolling at the institution at his/her own expense and reestablishing satisfactory progress. Retroactive payments of financial aid for periods a student is in unsatisfactory progress status are prohibited.

### **Financial Aid Appeals Process**

Students may appeal a decision to terminate financial assistance. The appeal must be made in writing to the Financial Aid Coordinator within

two weeks after notification letters of unsatisfactory progress status are mailed. The appeal must be accompanied by appropriate documentation. It will be reviewed by the Financial Aid Committee and the student will be notified of the results.

### **Maximum Program Time Frames**

All students receiving financial aid will be expected to complete their academic programs within the following number of quarters:

Enrollment Status	College Transfer	Technical	Vocational
Full - Time (12 hrs. +)	12	14	10
3/4 - Time (9 - 11 hrs.)	16	18	13
1/2 - Time (6 - 8 hrs.)	24	25	20
Less than 1/2 Time (1-5 hrs.)	48	56	40

Students who change divisions will assume the time limit for the new division minus the number of quarters already attended. Financial aid will be terminated following completion of the maximum time limit. All quarters in which the student attended, not just those in which aid was received, will count in the maximum time frame.

**Exception:** Time limits may be extended from 1 - 3 quarters for students required to take remedial coursework.

### **Effects of Previous Credits**

**Transfer Students** - Incoming transfer students will be considered to be making satisfactory progress at the time of their enrollment. Their maximum time frames will depend on the equivalent quarters of credit accepted for credit toward their degree.

**Returning Students** - Returning students will have their cumulative GPA and completed portion of maximum time frame carried forward.

### **Other Information**

Financial aid may not be used to pay for a remedial course which is not recommended through placement testing. Aid may be used to pay for each recommended remedial course only three times.

THIS POLICY IS SUBJECT TO CHANGE BASED ON INSTITUTIONAL AND FEDERAL GUIDELINES. IF ADDITIONAL INFORMATION REGARDING THIS POLICY IS NEEDED, PLEASE CONTACT THE FINANCIAL AID OFFICE.



## 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. The student assumes full responsibility for the consequences of his/her 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 him or herself in a manner that is not in compliance with the purposes of this institution. The complete policy for Students' Rights, Responsibilities, and Judicial Procedures is available in the Student Affairs Office.

### Drug and Alcohol Policy

It is the policy of this college that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance or alcohol, is prohibited while in the workplace, on college premises, or as part of any activity initiated by the college. Any employee or student violating this policy will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution. Copies of the complete policy are available in the Office of Student Affairs.

### Communicable Disease Policy

Isothermal Community College shall not exclude individuals with communicable diseases unless a determination is made that the individual presents a health risk to himself or others. It is the policy of Isothermal Community College to consider the educational or employment status of those with a communicable disease on an individual basis.

Communicable diseases as defined in this policy include but are not limited to acquired immunodeficiency syndrome (AIDS), chicken pox, hepatitis, measles, tuberculosis, meningitis, mononucleosis and whooping cough.

#### Communicable Diseases: Administrative Procedures

1. All information and records that identify a person as having a communicable disease shall be strictly confidential.
2. Disclosure of medical information shall be by the President only to those on a need-to-know basis to protect the welfare of persons infected with a communicable disease or the welfare of other members of the college community.
3. Unauthorized disclosure of medical information by an employee of the college is prohibited. Violation of this prohibition may result in

the suspension from or termination of employment at Isothermal Community College.

4. Persons who know or have a reasonable basis for believing, that they are infected with a communicable disease are expected to seek expert advice about their health circumstances and are obligated, ethically and legally, to conduct themselves responsibly toward other members of the college community.
5. Faculty and staff of Isothermal Community College and employees of contractors or contracted services who are infected with a communicable disease are urged to notify the appropriate Vice President so that the college can respond appropriately to their health needs. Students are urged to share information with the Dean of Student Services for the same reason.
6. Persons infected with a communicable disease (including the AIDS virus whether active AIDS, AIDS-Related Complex, or zero positive to virus) will not be excluded from enrollment or employment or restricted in their access to the college's services or facilities unless medically-based judgements in individual cases establish that exclusion or restriction is necessary. Included in making decisions in individual cases which restrict access to enrollment or employment shall be the college President, the college attorney, the department head, the individual's personal physician, the local health director (or designee), and if necessary, another physician with expertise in managing communicable disease cases.
7. The college shall communicate the most current information regarding communicable diseases, especially AIDS.

### **Students' Rights**

It is the duty of the President to exercise full authority in the regulation of student affairs and discipline in the institution. Delegation of this authority is normally made to the Dean of Student Affairs. Nevertheless, it is the duty of the President to insure to every student the right of due process and fair hearing, the presumption of innocence until found guilty, the right to know the evidence and to face witnesses testifying against him and the right to such advice and assistance in his own defense as may be allowable under the regulations of the college. In those instances where denial of any of these rights is alleged, it shall be the duty of the President to review the procedures of the disciplinary hearing. A complete policy of Students' Rights, Responsibilities and Judicial Procedures is available for review in the Student Affairs Office.

### **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 individual-

ity 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. A MANUAL OF STUDENT RIGHTS, RESPONSIBILITIES AND JUDICIAL PROCEDURES IS AVAILABLE UPON REQUEST IN THE STUDENT AFFAIRS OFFICE.

### **Traffic Regulations**

Faculty, staff and visitor parking areas are shown on the Campus Map as Staff Parking. These areas, and a small portion in front of Building ;#6(Student Parking 2), have yellow parking lines with reserved numbers. Students are asked not to park in these reserved spaces.

Student parking areas 1, 2, 3, 4, and 5 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 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 are 9:00 a.m. to 3:30 p.m. Monday through Friday at all times except the first two weeks of each quarter as follows:

#### **DAY**

First week 8:30 a.m. to 3 p.m.  
Monday through Friday  
Second week 8:30 a.m. to 3 p.m.  
Monday through Friday

#### **NIGHT**

6 p.m. to 8:30 p.m.  
Monday through Thursday  
6 p.m. to 7:30 p.m.  
Monday through Thursday

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.

**THE BOOKSTORE POLICY IS: BOOKS SOLD CANNOT BE EXCHANGED OR REPURCHASED.**

## **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 is set by the State Board of Community Colleges and is 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 fees cannot be paid during registration the student is required to make arrangements with the Business Office and if approved payment of fees will not be deferred more than seven days.

### **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 administration in support of co-curricular activities. Students are advised that, without the activity card, admission charges may be assessed at certain student activity functions.

### **Student Identification Cards**

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 card by paying the activity fee at registration.

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

### **Residence Status For Tuition Payment**

Applicants are responsible for submission of information needed by the institution to determine resident classification.

North Carolina G.S. 116-143.1 requires that 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/her classification as a resident for tuition purposes. N.C. G.S. 116-143.1 also sets forth statutory definitions, rules, and special provisions for determining resident status for tuition purposes. Classification of in-state or out-of-state for tuition purposes will be based on statements and supportive evidence provided by each applicant. In some cases the applicant may be asked to furnish additional information to support the residency claim. Failure to provide requested information for residency classification can result in classification as non-resident. Students classified as out-of-state for tuition are responsible for applying to the Admission/Records Coordinator for reclassification to in-state status at



the conclusion of the 12 month waiting period. No prior notice will be given by the institution. The change in classification, if deemed to be warranted, shall be effective at the next academic quarter following the date of application for reclassification. Regulations concerning the classification of students by residence are set forth in "A Manual to Assist Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." A copy of the manual is available for review in the Student Affairs Office.

The requisite domiciliary intent is tested by evaluating relevant, objectively verifiable conduct which may constitute a manifestation of the state of mind of the actor. The following types of inquiries, or combinations thereof, may be significant, though no one item, nor any combination of items, will necessarily control resolution of the question:

- a. Living or not living in the home of one's parents.
- b. Place where one voted or registered to vote.
- c. Place where one has served on jury duty.
- d. Place where one has registered and/or licensed a car.
- e. Place where one last acquired a driver's license.
- f. Place where one has filed state income tax returns.
- g. Place where one maintains personal property and last listed such for taxation.
- h. Place where one owns a home or other real property and pays taxes thereon.
- i. Place where one spends substantial parts of available vacation time.
- j. Place where one is or was employed or working gainfully.
- k. Place where one maintains membership in one or more professional associations, unions, and other organizations.
- l. Place where one last attended or graduated from high school
- m. Place where one resided before enrolling in an institution of higher education.
- n. Sources of one's financial support.

### **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 of the 1977 Session Laws.

### **BUSINESS AND INDUSTRY EDUCATIONAL SERVICES**

Isothermal Community College is committed to providing business and industry with a broad array of educational and training services. In addition to custom training and regular curricular offerings, the college can assist business and industry through the following program areas.

## **SMALL BUSINESS CENTER**

Ronnie Conner, Director

If you are considering a new business venture, an expansion of your current business, or need help in developing a business plan, Isothermal Community College's Small Business Center can work for you. Generally designed for the company with fewer than 100 employees, the Small Business Center provides additional training, one-on-one counseling, access to a state-wide network of business experts or the professional contacts and information needed by the small business. A resource center provides the latest literature and audiovisual material on operating a small business.

## **NEW AND EXPANDING INDUSTRY**

Jim McCammon, Business and Industry Services

Training is available to any new or expanding manufacturing employer creating a minimum of 12 new productive jobs in North Carolina. Training may be conducted on campus or at the company's facility. If neither site is available adequate space may be leased. These programs are customized to meet the existing needs of the employer with no tuition fees.

## **Adult Basic Education**

Mike Davis, Coordinator

Adult Basic Education is designed for those who need basic reading, writing, and mathematics skills. It offers training that will help adults become better shoppers, consumers, workers, and problem solvers. Classes may be geared toward helping adults get better jobs or improving present literacy-related job skills. Emphasis is placed on individual study for advancement at one's own pace. The program uses a variety of materials, ranging from basic reading to high school entry level, which are designed for adults. Adult Basic Education uses the CASAS system.

Classes usually meet for a three-hour session twice a week. To accommodate a variety of student needs, both daytime and evening classes are scheduled in neighborhoods or work places throughout Rutherford and Polk Counties. 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 Place or in an extension adult high school class.

## **CONTINUING EDUCATION**

Continuing Education's flexibility provides the opportunity to meet a wide variety of individual and group needs. Adults can study a high tech

skill, learn to read, take a course for self-enrichment, or develop quality management techniques. Some courses are offered on a continuing basis while others are given in response to requests of individuals or groups. Groups meet in schools, churches, community clubs, fire stations, and industry throughout Rutherford and Polk Counties and on campus. Class hours, the length of the course, and the number of meetings per week can be arranged for the convenience of the participants.

Anyone interested in a class can call the Continuing Education office, 286-3636 in Spindale or 894-3092 in Columbus. Classes are often set up for individual interest or in an organization: industry, church, or community group.

### **Admission and Registration**

Adults 18 years of age or older are eligible to participate in Continuing Education classes. High school students from Rutherford and Polk Counties, age 16 to 18, may enroll in a course with permission from their high school. Pre-registration is taken over the phone for most courses. This reserves their place and they will be notified of any course change. Registration and fee payment is completed at the first class meeting.

### **Registration Fees**

Student fees depend on the type of course. There are no registration fees for Adult Basic Education, GED, HRD, and the High School Diploma programs. Law enforcement, fire, rescue, and EMT personnel pay no fees for their in-service training. Prisoners and mentally handicapped adults are fee exempt. North Carolina residents 65 and over, do not pay a fee for some classes.

The fee for Occupational courses is \$35. Course fees for Community Services courses typically range \$7 - \$35.

### **Continuing Education Refund Policy**

1. A student who withdraws from a class prior to the first day of class or if the class is canceled will be eligible for a 100 percent refund of the registration fee.
2. After the class has started, requests for refunds should be made using the following schedule. The student will be eligible for a 75% refund of the registration fee.

<u>Scheduled Course Length</u>	<u>Request Made By or On</u>
4 times or less	The first day of class
5 or more times	20% of the class has passed

3. An option to a refund: The student may request a transfer to another Continuing Education course before 20% of the course has expired.

The course that is being transferred into must be within the same quarter, have space available, and have the instructor's approval.

4. Exceptions to this policy can be made by the following:

Courses Originating In  
Continuing Education Division  
Physical Education

Polk Campus

Exceptions Made By  
Dean of Continuing Education  
Physical Education Department  
Chair  
Polk Campus Director





## **Continuing Education Repetition Policy**

Continuing Education students may enroll in a course as many times as necessary to accomplish their personal, educational/training goals provided they continue: 1.) to show progress, 2.) do not prohibit other students from participating, 3.) pay the appropriate fees, and 4.) do not violate North Carolina Department of Community College policy.

Students who take the same Occupational Extension course more than twice are required to pay for the actual cost of the course or \$35 whichever is more. This applies if the course is repeated within a five year period since September 1, 1993. Courses taken for certification, licensure, or re-certification are exempt from this policy.

## **Continuing Education Units**

One Continuing Education Unit will be awarded for each 10 contact hours of instruction that will be determined prior to the beginning of the experience. A decision to award the CEU will be made after the program or activity has been offered. Calculations of contact hours will include the following elements:

1. Classroom time with direct participation between the students and instructors will be converted directly to contact hours.
2. Activities that use instruction such as supervised independent study, directed reading, or project based assignments will be awarded CEU's. Contact hours will be determined after finding the average amount of time and hours required to complete the learning activity.
3. Field trips and other experiential course activities will be awarded CEU's. This will usually be done on the basis of two hours required for each contact hour of instruction.

The CEU is used in three ways, as follows:

1. A unit of measure to recognize an individual's participation in non-credit activities that meet appropriate criteria.
2. The accounting unit of Isothermal Community College non-credit courses, programs, and activities.
3. The basis for quality assurance in Continuing Education programming.

The Dean of Continuing Education and the Director of Polk Campus have responsibility for final determination of the CEU's awarded for a particular Continuing Education experience. The instructor will verify and report that each participant has or has not met the specified requirements for satisfactory completion and is or is not awarded a CEU.

A permanent record of the student's participation will be maintained by Isothermal Community College.

See section on release of permanent records.

## Occupational Extension Program

Donna Wylie, Coordinator

Occupational classes help adults build their job skills or knowledge. These classes are held on campus or in the workplace. Business, industry and public service organizations have benefited from their employee's development through occupational courses. Here are some examples of occupational oriented courses.

Auto Inspection	Industrial Fire Brigade
Aviation Ground School	ISO 9000
Blueprints & Measurements	Law Enforcement
Building Contractor's Code	Nursing Assistant
Emergency Medical Service	Teacher Renewal Credit
Fire Fighting Geriatric Care	Total Quality Management

## Community Services

Noel Isham, Coordinator

Community Services courses help adults broaden their talents, stimulate their creativity, develop new skills, improve themselves, and just have fun. Examples of these courses include:

Cake Decorating	Investing
Ceramics	Painting
Conversational Languages	Pottery
Cooking & Nutrition	Quilting
Crafts	Sewing
Creative Writing	Sign Language
Guitar	Stress
Health & Wellness	

## Adult Basic Education

Mike Davis, Coordinator

Adult Basic Education is designed for those who need basic reading, writing, and mathematics skills. It offers training that will help adults become better shoppers, consumers, workers, and problem solvers. Classes may be geared toward helping adults get better jobs or improving present literacy-related job skills. Emphasis is placed on individual study for advancement at one's own pace. The program uses a variety of materials, ranging from basic reading to high school entry level, which are designed for adults. Adult Basic Education uses the CASAS system.

Classes usually meet for a three-hour session twice a week. To accommodate a variety of student needs, both daytime and evening classes are scheduled in neighborhoods or work places throughout Rutherford and Polk Counties. 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 Place or in an extension adult high school class.

### **HRD Program**

DeLane Davis, Coordinator

The HRD (Human Resources Development) Program helps the unemployed, underemployed or dislocated worker with motivation, attitudinal changes and pre-job orientation. It is presently operating in 45 Community Colleges and Technical Institutes in the state. There is no registration fee.

Participants learn to properly complete applications, write a resume and prepare for job interviews. The HRD students are encouraged to set personal goals and to define the steps to reach these goals. Individual follow-up is given to help each participant achieve success.

Students learn how to be better employees through individual/group interaction, discussion, and counseling. HRD encourages their sense of self worth, improves their communication skills and develops their ability and attitude to attain and keep a better employment level. At times, skills such as operating different computer programs and nurse's aide are included to help the student be more employable.

### **Compensatory Education**

Carol Lieurance, Coordinator

The Compensatory Education Program is provided for adults with mental handicaps. The focus of the program is on skills needed by adults with mental handicaps to function as independently as possible in society. It assumes an end result of productivity, employment, independence, and self-sufficiency.

The education programming includes the skill areas of basic academics (grades 1-8), high school academics, and vocational skills. The program consists of task-analyzed lesson plans field-tested by a team over a three-year period which include: language, math, social science, community living, consumer education, health, and vocational education.

These educational opportunities enable adults with mental handicaps to become more independent and self-directed. Also, they become more familiar with occupational skills and acquire skills to meet and manage community, social, work, and personal adult responsibilities.

In order to accommodate student needs, classes are offered during the day and evening with class hours being flexible. Classes are offered in communities, rest homes, nursing centers, and vocational workshops. There is no registration fee.

## **Adult High School**

Mary Ann Head, Coordinator

Two high school completion programs, Adult High School Diploma (AHSD) and General Educational Development (GED), are offered to Rutherford and Polk County residents. The AHSD program is available through a cooperative agreement with the Polk County Board of Education, the Rutherford County Board of Education, and Isothermal Community College.

The GED program is also offered in Rutherford and Polk Counties. Administrative guidelines set by the Department of Community Colleges and the American Council on Education are followed.

A variety of adult-oriented reading, writing, grammar, arithmetic, science, and social studies material is supplied for self-paced instruction. This allows a student to work individually and progress at his or her own pace. Individualized instruction by an instructor, aide, and/or tutor is supplied to each student during class time.

Any 18 year old or older adult whose class has graduated may enroll in either program. Sixteen and seventeen year olds may enroll with special written permission from proper authorities. Administrative guidelines set by the Department of Community Colleges and the American Council on Education are followed.

### **Adult High School Diploma**

Requirements include:

- 1) Satisfactory completion of units in English, mathematics, social studies, sciences, and health.
- 2) Satisfactory completion of elective units.
- 3) Passing score on the North Carolina Competency Test.

Credit for units may be given by one (or all) of the following methods:

- 1) A student may transfer credit from high school via a transcript.
- 2) A student, who is eligible, may elect to take challenge tests and receive credit by scoring 50th percentile or higher on selected standardized achievement tests.
- 3) A student may complete the course(s) in an adult high school class.

### **General Educational Development (GED)**

GED practice tests and GED study material are available through the high school completion program. A student's score on the practice GED test shows if the student should study and the subject(s) to review before attempting the actual test.



### **Class Locations and Hours**

Classes are offered in communities throughout Rutherford and Polk County, in industries, and on both the Spindale and Polk campus. These classes are free and are scheduled in the mornings, afternoons, and evenings.

The Learning Place, on both campuses, offers classes throughout the day and evening as follows:

#### **Learning Place (Spindale)**

Monday, Tuesday, Wednesday	8:30 am - 4:30 pm 5:30 pm - 8:30 pm
Thursday	8:30 am - 4:40 pm
Friday	8:30 am - 1:00 pm

#### **Learning Place (Polk)**

Monday, Tuesday, Wednesday	9-2 pm; 5:30 - 8:30 pm
Thursday	9-12 noon

#### **Telecourses**

A student can prepare for the GED test by watching weekly courses on public television. These courses usually begin in September. English, reading, and math lessons are telecast in 30 minute segments.

#### **Travel/Study Programs**

Augusta M. Hyde, Coordinator

The travel/study program provides stimulating opportunities for study through travel. Study tours are planned because of popular demand and are escorted by Isothermal Community College faculty and staff. Prior to each study tour a orientation seminar is conducted. While on tour the students, not only have the benefit of the expertise of our Isothermal Community College faculty members, but expert on-site guides.



# Polk County Campus



## POLK COUNTY CAMPUS

The Polk County Campus offers a wide selection of both credit and non-credit courses. Business and college transfer classes are offered for credit. Students may choose to complete specialized coursework at the Spindale campus or transfer to another college to complete a four-year degree. Non-credit (continuing education) courses range from self-enrichment classes to those which offer training to volunteer firemen, rescue personnel, and nursing assistants. Courses to improve occupational skills are offered as well. Adult Basic Education, General Educational Development (GED) and Adult High School programs are available.

Services offered at the Polk County Campus include placement testing, academic counseling, and financial aid assistance. The Polk Campus library is available for use by students as well as other members of the community.

Bulletins listing credit and non-credit courses are mailed out periodically. News releases of the curriculum and special events are placed in local papers.

The Polk County Campus is fortunate to have dedicated volunteers actively participating in the Polk County Campus I.C.C. Foundation, Inc. The Foundation has a significant role in fund raising, provides scholarship aid, and promotes Isothermal Community College in the community.

Regular hours at the Polk County Campus are Monday through Thursday, 8:00 a.m. to 9:30 p.m., Friday from 8:00 a.m. to 4:30 p.m., and other prearranged times including weekends. Additional information may be obtained by visiting the campus or calling 894-3092.

Polk County Campus  
Isothermal Community College  
902 Hwy 108 West  
Columbus, NC 28722





### **Curriculum Classes**

Both business and college transfer classes are offered at the Polk County Campus for college credit. Many are offered in the evening to accommodate students who work during the day. In addition, some daytime classes are offered to provide scheduling flexibility.

### **Continuing Education**

The Continuing Education Division provides educational non-credit opportunities for adults who desire to learn occupational skills, to upgrade their capabilities for professional success, or to enrich their personal lives. In order to accommodate a variety of student needs and interests, Continuing Education classes including computer, Notary Public Education, Certified Nursing Assistant, Emergency Medical Technician (EMT), Firefighter Certification, sewing, painting, foreign languages, and various special interest classes.

### **Adult High School Diploma Program**

Isothermal Community College, in cooperation with the Polk County School Board 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. There are no fees for these classes.

Requirements for an adult high school diploma include:

- (1) Satisfactory completion of units in English, mathematics, social studies, and sciences.
- (2) Satisfactory completion of a variety of elective units,
- (3) Passing score on the North Carolina Competency Test.

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

- (1) A student may transfer credit from high school via a transcript.
- (2) A student who makes 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) A student may complete the course(s) in an adult high school class

Students may choose to study at the Polk Campus or at other locations in the county. Each student in the program arranges his own study schedule and proceeds at his own individual pace. Diplomas earned are valid for those who wish to continue their studies in institutions of higher learning.

### **Adult Basic Education**

Adult Basic Education is a program designed to improve skills in reading, writing and math. These skills are related to practical situations that adults deal with in everyday life. The Adult Basic Education instructors

work closely with the Polk County Literacy Council which provides tutors for students desiring one-on-one instruction.

Classes meet four days a week on the Polk Campus. Also, there are night classes offered on campus and at other locations in the county. There is no charge for these classes.

Upon completion of the Adult Basic Education program, a student may enroll in the Adult High School Diploma program. This program is held at the same times and places as the Adult Basic Education classes.

### **General Educational Development Program (GED)**

The GED is a high school completion program. The GED test is offered on the Spindale Campus. Students may enroll on the Polk Campus to study and complete their practice tests. There is a charge of \$7.50 for the GED test.



## CURRICULUM PROGRAMS

**College Transfer Programs**

**Technical Programs**

**Vocational Programs**

**Certificate Programs**

**Student Support Services**

Curriculum programs at Isothermal Community College fall into two major categories—college transfer and occupational. Transfer programs are those designed primarily for the 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.

### **College Transfer**

- C-004 Pre-Business Administration
- C-026 Pre-Business Education
- C-040 Pre-Computer Science
- C-007 Pre-Engineering
- C-031 Pre-Health and Physical Education
- C-009 Pre-Journalism
- C-010 Pre-Law
- C-011 Pre-Liberal Arts
- C-012 Pre-Math
- C-013 Pre-Medical
- C-014 Pre-Ministerial
- C-015 Pre-Music
- C-016 Pre-Optometry
- C-017 Pre-Pharmacy
- C-018 Pre-Science
- C-019 Pre-Social Work
- C-035 Pre-Teaching—Elementary (K-6)
- C-020 Pre-Teaching—Middle grades (6-9)
- C-028 Pre-Teaching—Secondary (9-12)
- C-033 Pre-Textile Technology
- C-021 Pre-Veterinary Medicine
- C-024 General Curriculum

## **Technical**

T-030 Administrative Office Technology  
T-059 Associate Degree Nursing, Registered Nursing  
T-109 Associate Degree Program for Vocational Instructors  
T-189 Basic Law Enforcement Training  
T-018 Business Administration  
T-022 Business Computer Programming  
T-068 Commercial Graphics  
T-129 Criminal Justice - Protective Services Technology  
T-043 Drafting and Design Engineering Technology  
T-045 Electronics Engineering Technology  
T-201 General Technology Curriculum Core  
T-049 Industrial Management Technology  
T-229 Insurance Technical Specialty  
T-020 Marketing and Retailing  
T-051 Mechanical Engineering Technology  
T-192 Microcomputer Systems Technology  
T-179 Radio and TV Broadcasting Technology  
T-166 Real Estate Technical Specialty  
T-088 Teacher Associate

## **Vocational**

V-001 Automotive Body Repair  
V-003 Automotive Mechanics  
V-067 Child Care Worker  
V-009 Cosmetology  
V-018 Electrical Installation  
V-032 Machinist  
V-038 Practical Nursing  
V-050 Welding

The average rate of student persistence toward degree completion at Isothermal Community College is available in the office of Student Affairs.



## COLLEGE TRANSFER PROGRAMS

### Objectives

To provide opportunities for students to complete the general education requirements leading to an Associate of Arts Degree (A.A.) or to an Associate of Science Degree (A.S.). Courses in these programs transfer to senior (4-year) institutions; however, 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. 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 and in compliance with requirements at the school to which the student intends to transfer.

### Course Number System

College transfer courses are indicated by a three (3) digit number. Any such numbered course may be taken for graduation requirements. No course with a four-digit number may be taken for college transfer graduation requirements.

## GRADUATION COURSE REQUIREMENTS

### ASSOCIATE OF ARTS

The Associate of Arts degree will be awarded to those students completing the general liberal arts requirements listed below. While foreign language is not currently included on this list, students should be aware that many schools, including UNC-Ch, UNCC, UNCG, and UNCA, have language requirements that should be met before transfer. Consult four year college catalogs to determine this and/or other requirements of specific schools.

<b>Subject</b>	<b>Course</b>	<b>Credit Hours</b>
History	History 151, 152, 153	9
Communications	*English 151, 152, 153 (Must be taken in sequence)	9
Literature	English 250, 251, 252, 253, 254 (Any two of the five)	10
Mathematics	Any 10 hours numbered 150 or above	10
Computer Science	Any CSC or CAS course 3 or more credits	3
Natural Science	Any three-quarter sequence of the same lab science.	12
Physical Education	PED 150 and two physical education activity courses.	4
Humanities	See the Humanities section of the course descriptions for the list of courses that can be used to meet this requirement.	5
Social Science	May be taken from among any Psychology, Sociology, Anthropology, Economics, History, Geography, or Political Science courses.	5
Electives	May be chosen from among approved three digit courses.	29

\*ENG 161, 162, 163 will also satisfy this requirement.

## 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 the programs listed below:

**Pre-Science/Pre-Medical/Pre-Optometry/Pre-Pharmacy/Pre-Veterinary Medicine (C-018/C-013/C-016/C-017/C-021) must include:**

20 hours math (MAT 151, 152, 161, 162) or  
(MAT 153, 161, 162, 163)

24 hours Natural Science

4-6 additional hours math, science, and/or computer science

Additional science hours can be substituted for MAT 163 in Pre-Medical, Pre-Optometry, Pre-Pharmacy and Pre-Veterinary Medicine

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

MAT 161, 162, 163, 261 and

PHY 251, 252, 253 and

CHM 151, 152, 153 or

BIO 151, 152, 153

**Pre-Computer Science (C-040) must include:**

MAT 161, 162, 163, 261 and

PHY 251, 252, 253 or

CHM 151, 152, 153

12 hours of computer science

**Pre-Textile Technology (C-033) must include:**

CHM 151, 152, 153

PHY 251, 252, 253

Any 30 hours of math courses numbered 151 or above.

These requirements are reflected in the program outlines which follow.

### COLLEGE TRANSFER PROGRAM OUTLINES

The following program outlines are recommended for students who wish to complete a program in two academic years without attending summer school. Students who work or who attend in the evenings may choose to deviate from these outlines to accommodate individual needs.

## PRE-BUSINESS ADMINISTRATION C-004

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
MAT	151	College Algebra & Trigonometry I	5	0	5
		Natural Science	3	3	4
HIS	151	World Civilization I	3	0	3
PED	150	Concepts in Physical Education	1	2	2
ORI	100	Student Orientation Seminar	1	0	1
			16	5	18
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
MAT	152	College Algebra & Trigonometry II	5	0	5
		Natural Science	3	3	4
HIS	152	World Civilization II	3	0	3
PED		Selection	0	3	1
			14	6	16
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
		Natural Science	3	3	4
HIS	153	World Civilization III	3	0	3
PED		Selection	0	3	1
		Humanities Requirement	5	0	5
			14	6	16
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
ACC	210	Principles of Accounting	3	2	4
		Computer Requirement	3	0	3
ECO	201	Principles of Economics	3	0	3
			14	2	15
<b>FIFTH QUARTER</b>					
		Literature	5	0	5
ACC	211	Principles of Accounting	3	2	4
ECO	202	Principles of Economics	3	0	3
		Social Science Requirement	5	0	5
			16	2	17
<b>SIXTH QUARTER</b>					
ACC	212	Principles of Accounting	3	2	4
ECO	203	Principles of Economics	3	0	3
		Electives	2	0	2
			13	2	14
		<b>TOTAL HOURS</b>	<b>87</b>	<b>23</b>	<b>96</b>



## PRE-BUSINESS EDUCATION C-026

<b>FIRST QUARTER</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
ENG	151	Freshman Composition I	3	0	3
MAT		Math requirement	5	0	5
OSC	101	Keyboarding/Document Formatting I	2	3	3
		Science Selection	3	3	4
HIS	151	World Civilization I	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
			17	6	19
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
MAT		Math requirement	5	0	5
		Science Selection	3	3	4
HIS	152	World Civilization II	3	0	3
PED		150 Concepts in PE	1	2	2
			15	5	17
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
		Computer Requirement	3	0	3
		Science Selection	3	3	4
HIS	153	World Civilization III	3	0	3
		Elective	4	0	4
PED		Selection	0	3	1
			16	9	18
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
ACC	210	Principles of Accounting	3	2	4
ECO	201	Principles of Economics	3	0	3
		Humanities Requirement	5	0	5
			16	2	17
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
ACC	211	Principles of Accounting	3	2	4
ECO	202	Principles of Economics	3	0	3
			11	2	12
<b>SIXTH QUARTER</b>					
ACC	212	Principles of Accounting	3	2	4
ECO	203	Principles of Economics	3	0	3
PED		Selection	0	3	1
		Social Science Requirement	5	0	5
			11	5	13
		<b>TOTAL HOURS</b>	<b>86</b>	<b>29</b>	<b>96</b>

## PRE-COMPUTER SCIENCE C-040

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
PED	150	Concepts in Physical Education	1	2	2
OSC	106	Principles of Problem Solving	3	2	4
MAT	153	Pre-Calculus	5	0	5
HIS	151	World Civilization I	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
			16	4	18
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
MAT	161	Calculus and Analytic Geometry I	5	0	5
HIS	152	World Civilization II 3 0 3			
CSC	210	Basic Programming	3	2	4
			18	2	15
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
MAT	162	Calculus and Analytic Geometry II	5	0	5
		Social Science Requirement	5	0	5
HIS	153	World Civilization III	3	0	3
PED		Selection	0	3	1
			16	3	17
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
MAT	163	Calculus and Analytic Geometry III	5	0	5
CHM	151	General Chemistry I	3	3	4
		or			
PHY	251	Analytical Physics I			
PED		Selection	0	3	1
		Elective	4	0	4
			17	6	19
<b>FIFTH QUARTER</b>					
CSC	227	C Programming	3	2	4
CHM	152	General Chemistry II	3	3	4
		or			
PHY	252	Analytical Physics II			
MAT	261	Calculus and Analytic Geometry IV	5	0	5
			8	5	13
<b>SIXTH QUARTER</b>					
		Literature Selection	5	0	5
CHM	153	General Chemistry III	3	3	4
		or			
PHY	223	Analytical Physics III			
		Humanities Requirement	5	0	5
			13	3	14
		<b>TOTAL HOURS</b>	<b>88</b>	<b>23</b>	<b>96</b>

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

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
CHM	151	General Chemistry I	3	3	4
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
MAT	153	Pre-Calculus	5	0	5
ORI	100	Student Orientation Seminar	1	0	1
			15	3	16
<b>SECOND QUARTER</b>					
CHM	152	General Chemistry II	3	3	4
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
MAT	161	Calculus & Analytic Geometry I	5	0	5
PED	150	Concepts in Physical Education	1	2	2
			15	5	17
<b>THIRD QUARTER</b>					
CHM	153	General Chemistry III	3	3	4
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
MAT	162	Calculus & Analytic Geometry II	5	0	5
PED		Selection	0	3	1
			18	6	16
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
MAT	163	Calculus & Analytic Geometry III	5	0	5
PHY	251	Analytical Physics I	3	3	4
PED		Selection	0	3	1
			13	6	15
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
PHY	252	Analytical Physics II	3	3	4
MAT	261	Calculus & Analytic Geometry IV	5	0	5
		Computer Requirement	3	0	3
			16	3	17
<b>SIXTH QUARTER</b>					
PHY	253	Analytical Physics III	3	3	4
		Humanities Requirement	5	0	5
		Social Science Requirement	5	0	5
		Elective	1	0	1
			14	3	15
<b>TOTAL HOURS</b>			91	26	96

## PRE-HEALTH AND PHYSICAL EDUCATION C-031

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
MAT		Math Requirement	5	0	5
PED	150	Concepts in Physical Education	1	2	2
		Natural Science (Biology)	3	3	4
ORI	100	Student Orientation Seminar	1	0	1
			16	5	18
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
MAT		Math Requirement	5	0	5
		Natural Science (Biology)	3	3	4
			17	3	15
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
HEA	250	Personal & Community Health	5	0	5
PED		Selection	0	3	1
		Natural Science (Biology)	3	3	4
			14	6	16
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
		Humanities Requirement	5	0	5
BIO	270	Anatomy & Physiology I	3	3	4
PED		Selection	0	3	1
			13	6	15
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
ENG	170	Public Speaking	3	0	3
BIO	271	Anatomy & Physiology II	3	3	4
		Computer Requirement	3	0	3
			14	3	15
<b>SIXTH QUARTER</b>					
SAF	151	First Aid	3	0	3
BIO	272	Anatomy & Physiology III	3	3	4
		Social Science Requirement	5	0	5
		Elective	5	0	5
			16	3	17
		<b>TOTAL HOURS</b>	<b>90</b>	<b>26</b>	<b>96</b>



## PRE-JOURNALISM C-009

<b>FIRST QUARTER</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
MAT		Math Requirement	5	0	5
ENG	180	Journalism	3	0	3
		Science Selection	3	3	4
ORI	100	Student Orientation Seminar	1	0	1
			18	3	19
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
MAT		Requirement	5	0	5
		Journalism Practice	0	3	1
PED		Selection	0	3	1
		Science Selection	1	3	4
			14	9	17
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
ENG	181	Journalism Practice	0	3	1
		Science Selection	3	3	4
		Social Science Requirement	5	0	5
			14	6	16
<b>FOURTH QUARTER</b>					
ENG	181	Journalism Practice	0	3	1
		Humanities Requirement	5	0	5
PED	150	Concepts in Physical Education	1	2	2
SOC	160	Introduction to Sociology	5	0	5
			11	5	13
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
ENG	181	Journalism Practice	0	3	1
PED		Selection	0	3	1
		Computer Requirement	3	0	3
PSY	260	General Psychology	5	0	5
			13	6	15
<b>SIXTH QUARTER</b>					
		Literature Selection	5	0	5
ENG	181	Journalism Practice	0	3	1
		Elective	4	0	4
ENG	260	Creative Writing	3	0	3
ENG	170	Public Speaking	3	0	3
			15	3	16
		<b>TOTAL HOURS</b>	<b>85</b>	<b>32</b>	<b>96</b>

## PRE-LAW C-010

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
		Science Selection	3	3	4
MAT		Math Requirement	5	0	5
PED	150	Concepts in Physical Education	1	2	2
ORI	100	Student Orientation Seminar	1	0	1
			16	5	18
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
		Science Selection	3	3	4
MAT		Math Requirement	5	0	5
PED		Selection	0	3	1
			14	6	16
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
		Science Selection	3	3	4
		Humanities Requirement	5	0	5
PED		Selection	0	3	1
			14	6	16
<b>FOURTH QUARTER</b>					
HIS	260	History of U.S.	3	0	3
POL	261	American Politics	5	0	5
		Computer Requirement	3	0	3
		Elective	3	0	3
			14	0	14
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
HIS	261	History of the U.S.	3	0	3
POL	262	State and Local Government	3	0	3
		Electives	6	0	6
			17	0	17
<b>SIXTH QUARTER</b>					
		Literature Selection	5	0	5
HIS	262	History of U.S.	3	0	3
		Electives	2	0	2
			15	0	15
		<b>TOTAL HOURS</b>	<b>90</b>	<b>17</b>	<b>96</b>

Electives should be taken from the social science area.

## PRE-LIBERAL ARTS C-011

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
		Science Selection	3	3	4
MAT		Math Requirement	5	0	5
ORI	100	Student Orientation Seminar	1	0	1
			15	3	16
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
		Science Selection	3	3	4
MAT		Math Requirement	5	0	5
PED	150	Concepts in Physical Education	1	2	2
			15	5	17
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
		Science Selection	3	3	4
PED		Selection	0	3	1
		Computer Requirement	3	0	3
			12	6	14
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
		Humanities Requirement	5	0	5
		Electives	6	0	6
PED		Selection	0	3	1
			16	3	17
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
		Humanities Selection	5	0	5
		Electives	6	0	6
			16	0	16
<b>SIXTH QUARTER</b>					
		Social Science Requirement	5	0	5
		Electives	11	0	11
			16	0	16
		<b>TOTAL HOURS</b>	<b>91</b>	<b>15</b>	<b>96</b>

\*Foreign Language and other humanities courses are recommended electives.

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

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
MAT	153	Pre-Calculus	5	0	5
		Science Selection	3	3	4
PED	150	Concepts in Physical Education	1	2	2
ORI	100	Student Orientation Seminar	1	0	1
			16	5	18
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
MAT	161	Calculus and Analytic Geometry I	5	0	5
		Science Selection	3	3	4
PED		Selection	0	1	1
			14	6	16
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
		Science Selection	3	3	4
MAT	162	Calculus and Analytic Geometry II	5	0	5
			14	3	15
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
		Social Science Requirement	5	0	5
		Natural Science	3	3	4
		Natural Science	3	3	4
			16	6	18
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
		Natural Science	3	3	4
		Natural Science	3	3	4
			11	6	13
<b>SIXTH QUARTER</b>					
		Natural Science	3	3	4
		Computer Science	3	0	3
		Humanities Requirement	5	0	5
PED		Selection	0	3	1
		Elective	3	0	3
			14	6	16
		<b>TOTAL HOURS</b>	<b>85</b>	<b>32</b>	<b>96</b>

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-MINISTERIAL C-014

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
MAT		Math Requirement	5	0	5
		Science Selection	3	3	4
ORI	100	Student Orientation Seminar	1	0	1
			15	3	16
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
MAT		Math Requirement	5	0	5
		Science Selection	3	3	4
PED	150	Concepts in PE	1	2	2
			15	5	17
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
REL	162	World Religions	5	0	5
		Computer Requirement	3	0	3
		Science Selection	3	3	4
			17	3	18
<b>FOURTH QUARTER</b>					
SOC	160	Introduction to Sociology	5	0	5
PSY	260	General Psychology	5	0	5
REL	160	Old Testament	5	0	5
			15	0	13
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
SOC	161	Social Problems	3	0	3
PED		Selection	0	3	1
REL	161	New Testament	5	0	5
			16	3	17
<b>SIXTH QUARTER</b>					
		Literature Selection	5	0	5
SOC	162	Family Sociology	3	0	3
PED		Selection	0	3	1
		Electives	4	0	4
			12	3	13
		<b>TOTAL HOURS</b>	<b>90</b>	<b>17</b>	<b>96</b>

## PRE-MUSIC C-015

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
		Science Selection	3	3	4
MUS	151	Intro. to Music History I	3	0	3
PED	150	Concepts in Physical Education	1	2	2
		Ensemble	0	3	1
ORI	100	Student Orientation Seminar	1	0	1
			12	11	17
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
		Science Selection	3	3	4
MUS	152	Intro. to Music History II	3	0	3
PED		Selection	0	3	1
		Ensemble	0	3	1
			12	12	15
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
		Natural Science	3	3	4
		Elective	4	0	4
PED		Selection	0	3	1
		Ensemble	0	3	1
			13	12	16
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
MAT		Math Requirement	5	0	5
MUS	160	Music Theory I	3	2	4
		Ensemble	0	3	1
			13	3	15
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
		Math Requirement	5	0	5
		Computer Requirement	3	0	3
MUS	161	Music Theory II	3	2	4
		Ensemble	0	3	1
			16	5	18
<b>SIXTH QUARTER</b>					
		Humanities Requirement	5	0	5
		Social Science Requirement	5	0	5
MUS	162	Music Theory III	3	2	4
		Ensemble	0	3	1
			13	5	15
		<b>TOTAL HOURS</b>	<b>79</b>	<b>49</b>	<b>96</b>

All music majors must also take applied music.  
 All voice majors must take class piano through piano IV.  
 All piano majors will take one quarter of class voice.

**PRE-OPTOMETRY C-016  
PRE-PHARMACY C-017  
PRE-VETERINARY MEDICINE C-021**

<b>FIRST QUARTER</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
BIO	151	Principles of Biology I	3	3	4
MAT	151	College Algebra & Trigonometry I	5	0	5
		or			
MAT	153	Pre-Calculus			
ORI	100	Student Orientation Seminar	1	0	1
			15	3	16
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
BIO	152	Principles of Biology II	3	3	4
MAT	152	College Algebra & Trigonometry II	5	0	5
		or			
MAT	161	Calculus and Analytic Geometry I			
PED		Selection	0	3	1
PED	150	Concepts in PE	1	2	2
			15	8	18
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
BIO	153	Principles of Biology III	3	3	4
MAT	161	Calculus & Analytic Geometry I	5	0	5
		or			
MAT	162	Calculus & Analytic Geometry II			
PED		Selection	0	3	1
			14	6	16
<b>FOURTH QUARTER</b>					
CHM	151	General Chemistry I	3	3	4
		or			
PHY	251	Analytical Physics I			
		Humanities Requirement	5	0	5
PED		Selection	0	3	1
		Electives	5	0	5
			13	6	15

**FIFTH QUARTER**

		Literature Selection	5	0	5
CHM	152	General Chemistry II or	3	3	4
PHY	252	Analytical Physics II	3	3	3
MAT	162	Calculus & Analytic Geometry II or			
MAT	163	Calculus & Analytic Geometry III			
			13	3	14

**SIXTH QUARTER**

		Literature Selection	5	0	5
CHM	153	General Chemistry III or	3	3	4
PHY	253	Analytical Physics III			
		Computer Requirement	3	0	3
		Social Science Requirement	5	0	5
			15	3	17
		TOTAL HOURS	86	26	96

\*Additional sciences may be required by transfer institutions for these programs. Check catalogs and choose science selections in accordance with transfer requirements.





## PRE-SOCIAL WORK C-019

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
		Science Selection	3	3	4
SOC	160	Introduction to Sociology	5	0	5
ORI	100	Student Orientation Seminar	1	0	1
			15	3	16
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
		Science Selection	3	3	4
PSY	260	General Psychology	5	0	5
SOC	161	Social Problems	3	0	3
			17	3	18
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
		Science Selection	3	3	4
SOC	162	Sociology of the Family	3	0	3
PSY	261	Developmental Psychology	3	0	3
PED		Selection	0	3	1
			15	6	17
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
MAT		Math Requirement	5	0	5
PED	150	Concepts in Physical Education	1	2	2
		Elective	3	0	3
			14	2	15
<b>FIFTH QUARTER</b>					
		Literature Selection	5	0	5
MAT		Math Requirement	5	0	5
PSY	263	Abnormal Psychology	3	0	3
SOC	163	Family Violence	3	0	3
			16	0	16
<b>SIXTH QUARTER</b>					
		Humanities Requirement	5	0	5
		Computer Requirement	3	0	3
PED		Selection	0	3	1
		Electives	5	0	5
			13	3	14
		<b>TOTAL HOURS</b>	<b>90</b>	<b>17</b>	<b>96</b>

\*Electives to be considered should include Foreign Language, Anthropology, Religion, U.S. History, Political Science, Philosophy, and Public Speaking.

**PRE-TEACHING (K-6) C-035**  
**PRE-TEACHING (Middle grades) C-020**  
**PRE-TEACHING (Secondary) C-028**

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
HIS	151	World Civilization I	3	0	3
		Biological Science	3	3	4
MAT		Math Requirement	5	0	5
PED	150	Concepts in Physical Education	1	2	2
ORI	100	Student Orientation Seminar	1	0	1
			16	5	18
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
HIS	152	World Civilization II	3	0	3
		Biological Science	3	3	4
MAT		Math Requirement	5	0	5
PED		Selection	0	1	1
			14	6	16
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
HIS	153	World Civilization III	3	0	3
		Biological Science	3	3	4
PED		Selection	0	3	1
		Electives	5	0	5
			14	6	16
<b>FOURTH QUARTER</b>					
HIS	299	History of North Carolina	5	0	5
GEO	160	Physical Geography	3	2	4
ART	160	Survey of Art	5	0	5
		Computer Requirement	3	0	3
			16	2	17
<b>FIFTH QUARTER</b>					
PED	150	Concepts in PE	1	2	2
		Literature Selection	5	0	5
GEO	161	Economic Geography	3	0	3
MUS	181	Music Appreciation	5	0	5
			14	2	15
<b>SIXTH QUARTER</b>					
		Literature Selection	5	0	5
GEO	162	World Regions	3	0	3
		Electives	6	0	6
			14	0	14
		<b>TOTAL HOURS</b>	<b>88</b>	<b>21</b>	<b>96</b>

\*Electives should be taken from Humanities, Foreign Language, Social Science, and Science courses to suit individual interest and senior institution requirements.

Note: Some transfer institutions require both a biological and a physical science.

## PRE-TEXTILE TECHNOLOGY C-033

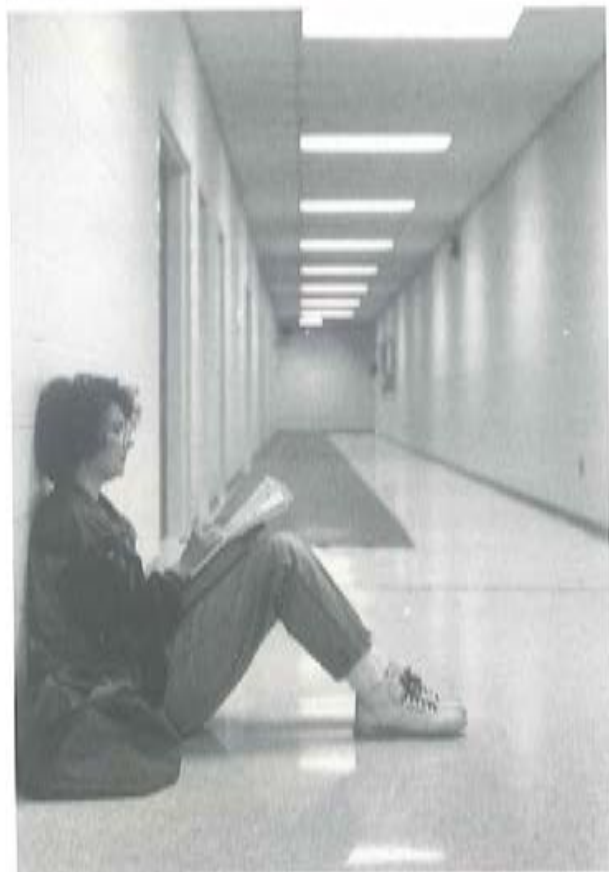
		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ENG	151	Freshman Composition I	3	0	3
MAT	151	College Algebra & Trigonometry I or	5	0	5
MAT	153	Pre-Calculus			
CHM	151	General Chemistry I	3	3	4
HIS	151	World Civilization I	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
			15	3	16
<b>SECOND QUARTER</b>					
ENG	152	Freshman Composition II	3	0	3
MAT	155	College Algebra & Trigonometry II or	5	0	5
MAT	161	Calculus & Analytic Geometry I			
CHM	152	General Chemistry II	3	3	4
HIS	152	World Civilization II	3	0	3
			14	3	13
<b>THIRD QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
MAT	162	Calculus & Analytic Geometry II or	5	0	5
MAT	163	Calculus & Analytic Geometry III			
PED	150	Concepts in Physical Education	1	2	2
CHM	153	General Chemistry III	3	3	4
HIS	153	World Civilization III	3	0	3
			15	5	17
<b>FOURTH QUARTER</b>					
		Literature Selection	5	0	5
MAT	163	Calculus & Analytic Geometry III or	5	0	5
MAT	261	Calculus & Analytic Geometry IV			
PHY	251	Analytical Physics I	3	3	4
PED		Selection	0	1	1
			13	6	13

**FIFTH QUARTER**

		Literature Selection	5	0	5
		Computer Requirement	3	0	3
PHY	252	Analytical Physics II	3	3	4
PED		Selection	0	3	1
		Elective	1	0	1
			12	6	14

**SIXTH QUARTER**

MAT	261	Calculus & Analytic Geometry IV or	5	0	5
		Introductory Statistics			
MAT	170	Analytical Physics III	3	3	4
PHY	253	Humanities Requirement	5	0	5
		Social Science Requirement	5	0	5
			18	3	19
		TOTAL HOURS	87	26	96



## **TECHNICAL PROGRAMS**

### **Associate of Applied Science Degree (A.A.S.) Graduation Requirements**

An Associate of Applied Science (A.A.S.) degree will be awarded to those students completing the requirements for a technical degree with a minimum of a 2.0 grade point average.

### **BUSINESS DIVISION A.A.S. Degree Program**

- T-030 Administrative Office Technology
- T-018 Business Administration
- T-022 Business Computer Programming
- T-049 Industrial Management Technology
- T-020 Marketing and Retailing
- T-192 Microcomputer Systems Technology

### **VOCATIONAL-TECHNICAL DIVISION A.A.S. Degree Program**

- T-059 Associate Degree Nursing, Registered Nursing
- T-109 Associate Degree Program for Vocational Instructors
- T-189 Basic Law Enforcement Training
- T-068 Commercial Graphics
- T-129 Criminal Justice - Protective Services Technology
- T-043 Drafting and Design Engineering Technology
- T-045 Electronics Engineering Technology
- T-051 Mechanical Engineering Technology
- T-179 Radio and TV Broadcasting Technology
- T-088 Teacher Associate

## **TECHNICAL CERTIFICATE PROGRAMS**

A certificate of achievement may be awarded to a student who completes the required courses in the following areas. The student should apply to the Registrar's Office for the certificate.

- T-030 Administrative Office Technology Certificate
- T-018 Business Administration Certificate
- T-045 Electronics Engineering Technology Certificate Program
- T-201 General Technology Curriculum Core
- T-049 Industrial Management Technology Certificate
- T-229 Insurance Technical Specialty
- T-166 Real Estate Technical Specialty
- T-179 Radio and TV Broadcasting Certificate



## ADMINISTRATIVE OFFICE TECHNOLOGY T-030

This curriculum prepares individuals to perform secretarial and administrative support duties in a variety of offices including those offices with computerized, automated functions.

Students in this curriculum study keyboarding and word/information processing to develop skills in the preparation of business correspondence, reports, statistical copy, manuscripts and business forms. Administrative support courses emphasize typical office tasks such as scheduling appointments, composing correspondence and performing reprographic duties. Training is also provided in analyzing and coordinating office duties and systems. Skills and knowledge are taught in the areas of electronic document storage and retrieval and computer software utilization.

Graduates of the program may be employed in offices in private business establishments involved in retailing, marketing, advertising, and manufacturing as well as offices in local, state, and federal government.



## ADMINISTRATIVE OFFICE TECHNOLOGY T-030 (Day)

FIRST QUARTER (Fall)			CLASS	LAB	CREDIT
BUS	100	Introduction to Business	3	0	3
CAS	101	Computer Applications & Concepts	3	0	3
COE	100	Employment Seeking Skills	1	0	1
MAT	107	Mathematics Principles	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
OSC	101	Keyboarding/Document Formatting I	2	3	3
OSC	108	Records Management	3	0	3
			16	3	17
SECOND QUARTER (Winter)					
BUS	201	Industrial Psychology	3	0	3
BUS	239	Business Mathematics	3	2	4
CAS	163	WordPerfect	3	2	4
CAS	214	Microsoft Windows	3	0	3
OSC	102	Document Formatting II	3	2	4
			15	6	18
THIRD QUARTER (Spring)					
BUS	101	Professional Development	3	0	3
CAS	248	Advanced Wordperfect	3	2	4
ENG	151	Freshman Composition I	3	0	3
OSC	103	Document Formatting III	3	2	4
OSC	165	Word Processing Applications	3	2	4
			15	6	18
FOURTH QUARTER (Fall)					
ACC	210	Principles of Accounting I	3	2	4
BUS	225	Business Law	3	0	3
BUS	257	Applied Business Communications I	3	0	3
CAS	241	Lotus 1-2-3	3	2	4
		Elective	3	0	3
MKT	120	Marketing	3	0	3
			18	4	20
FIFTH QUARTER (Winter)					
ACC	211	Principles of Accounting II	3	2	4
BUS	258	Applied Business Communications II	3	0	3
CAS	252	dBASE	3	2	4
ECO	260	Consumer Economics	3	0	3
ENG	152	Freshman Composition II	3	0	3
OSC	109	Transcription Skills	3	2	4
			18	6	21
SIXTH QUARTER (Spring)					
BUS	214	Principles of Management	3	0	3
		Elective—Humanities	3	0	3
ENG	153	Freshman Composition III	3	0	3
ENG	170	Public Speaking	3	0	3
		Related Elective	3	0	3
OSC	205	Machine Transcription	3	2	4
OSC	213	Secretarial Administration	3	0	3
			21	2	22
		TOTAL CREDIT HOURS			116

## ADMINISTRATIVE OFFICE TECHNOLOGY T-030 (EVENING)

FIRST QUARTER (Fall)			CLASS	LAB	CREDIT
BUS	100	Introduction to Business	3	0	3
CAS	101	Computer Applications & Concepts	3	0	3
COE	100	Employment Seeking Skills	1	0	1
MAT	107	Mathematics Principles	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
OSC	101	Keyboarding/Document Formatting I	2	2	3
			13	3	14
SECOND QUARTER (Winter)					
BUS	201	Industrial Psychology	3	0	3
CAS	214	Microsoft Windows	3	0	3
ECO	260	Consumer Economics	3	0	3
OSC	102	Document Formatting II	3	2	4
			12	2	13
THIRD QUARTER (Spring)					
BUS	101	Professional Development	3	0	3
BUS	239	Business Mathematics	3	2	4
CAS	163	Word Perfect	3	2	4
OSC	108	Records Management	3	0	3
			12	4	14
FOURTH QUARTER (Summer)					
CAS	241	Lotus 1-2-3	3	2	4
ENG	151	Freshman Composition I	3	0	3
OSC	103	Document Formatting III	3	2	4
OSC	165	Word Processing Applications	3	2	4
			12	6	15
FIFTH QUARTER (Fall)					
ACC	210	Principles of Accounting I	3	2	4
BUS	225	Business Law	3	0	3
BUS	257	Applied Business Communications I	3	0	3
MKT	120	Marketing	3	0	3
			12	2	13
SIXTH QUARTER (Winter)					
ACC	211	Principles of Accounting II	3	2	4
BUS	258	Applied Business Communications II	3	0	3
CAS	248	Advanced Wordperfect	3	2	4
CAS	252	dBASE	3	2	4
			12	6	15
SEVENTH QUARTER (Spring)					
BUS	214	Principles of Management	3	0	3
OSC	109	Transcription Skills	3	2	4
OSC	213	Secretarial Administration	3	0	3
		Related Elective	3	0	3
			12	2	13

**EIGHTH QUARTER (Summer)**

ENG	152	Freshman Composition II	3	0	3
ENG	170	Public Speaking	3	0	3
OSC	205	Machine Transcription	3	2	4
			9	2	10

**NINTH QUARTER (Fall)**

		Elective	3	0	3
		Elective-Humanities	3	0	3
ENG	153	Freshman Composition III	3	0	3
			9	0	9
		<b>TOTAL CREDIT HOURS</b>			<b>116</b>

**ADMINISTRATIVE OFFICE TECHNOLOGY CERTIFICATE T-030**

A certificate of achievement will be awarded upon successful completion (average of "C"-2.00 GPA) of a minimum of 42 credit hours from requirements listed below.

			<b>Credit Hours</b>
ACC	210	Principles of Accounting I	4
BUS	101	Professional Development	3
BUS	239	Business Mathematics	4
BUS	257	Applied Business Communications I	3
CAS	101	Computer Applications & Concepts	3
CAS	163	Word Perfect	4
ENG	151	Freshman Composition I	3
MAT	107	Mathematics Principles	3
ORI	100	Student Orientation Seminar	1
OSC	101	Keyboarding/Document Formatting I	3
OSC	102	Document Formatting II	4
OSC	165	Word Processing Applications	4
OSC	213	Secretarial Administration	3
		<b>TOTAL CREDIT HOURS</b>	<b>42</b>

## ASSOCIATE DEGREE NURSING, REGISTERED NURSING T-059

The Associate Degree Nursing curriculum is designed to prepare graduates to integrate the principles and theories of nursing and the sciences in utilizing the nursing process in the practice of nursing. The practice of nursing by associate degree nursing graduates consists of assessing the patient's physical and mental health, including the patient's reaction to illness and treatment regimens; recording and reporting the results of the nursing assessment; planning, initiating, delivering, and evaluating appropriate nursing acts; teaching, delegating to or supervising other personnel in implementing the treatment regimen; collaborating with other health care providers in determining the appropriate health care for a patient; implementing the treatment and pharmaceutical regimen prescribed by any person authorized by state law to prescribe such a regimen; providing teaching and counseling about the patient's health care; reporting and recording the plan for care, nursing care given, and the patient's response to that care; and supervising, teaching, and evaluating those who perform or are preparing to perform nursing functions.

Graduates are eligible to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a registered nurse.

Individuals desiring a career in registered nursing should take biology, algebra and chemistry courses prior to entering the program.

## ASSOCIATE DEGREE NURSING, REGISTERED NURSING T-059

				Hours Per Week			Quarter
				Class	Lab	Clinical	Hours Credit
<b>FIRST YEAR</b>							
<b>First Quarter (Fall)</b>							
BIO	270	Anatomy and Physiology I	3	3	0	4	
NUR	101	Basic Concepts in Nursing	6	4	3	9	
NUR	102	Pharmacological Concepts in Nursing	3	0	0	3	
NUT	160	Basic Nutrition	3	0	0	3	
			15	7	3	19	
<b>Second Quarter (Winter)</b>							
BIO	271	Anatomy and Physiology II	3	3	0	4	
NUR	103	Nursing Care of Adults I	4	2	12	9	
PSY	259	General Psychology	3	0	0	3	
			10	5	12	16	
<b>Third Quarter (Spring)</b>							
BIO	272	Anatomy and Physiology III	3	3	0	4	
PSY	261	Developmental Psychology	3	0	0	3	
NUR	104	Nursing Care of Adults II	4	0	12	8	
			10	3	12	15	



**Fourth Quarter (Summer)**

BIO	280	Microbiology (1/2 Qt.) - 1st session	2	3	0	3
BIO	281	Microbiology (1/2 Qt.) - 2nd session	2	3	0	3
SOC	159	Introduction to Sociology	3	0	0	3
NUR	105	Mental Health Nursing	5	0	12	9
			12	6	12	18

**SECOND YEAR****Fifth Quarter (Fall)**

ENG	151	Freshman Composition I	3	0	0	3
NUR	201	Nursing Care of Older Adults	4	0	12	8
CAS	101	Microcomputer Applications and Concepts	2	2	0	3
			9	2	12	14

**Sixth Quarter (Winter)**

ENG	152	Freshman Composition II	3	0	0	3
NUR	202	Nursing Care of the Childbearing family (1/2 quarter)	5	0	12	9
NUR	203	Nursing Care of Children (1/2 quarter)	5	0	12	9
		Elective	3	0	0	3
			16	0	24	24

**Seventh Quarter (Spring)**

ENG	153	Freshman Composition III	3	0	0	3
NUR	204	Nursing Care of Adults III	5	0	15	10
NUR	205	Nursing Perspectives and Issues	3	0	0	3
			11	0	15	16
NUR	100	Nursing Role Transition (LPNs only on demand)	3	2	0	4
		<b>TOTAL CREDIT HOURS</b>				<b>122</b>

## 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.  
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.
- B. One quarter hour credit per forty hours of special short course instruction—company sponsored school, certified diploma, certificate, or letter by company school.
- 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.
- 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.  
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 Dean of Vocational/Technical Education 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) .....	41
Minimum:	
English .....	12
Social Sciences .....	6
Math .....	7
Science .....	4
Related Elective .....	12
C. Professional Area (Educational Methods) .....	23
EDU 110, 111, 112, 113, 114, 117, 234, CAS 118, ORI 100	
D. Elective .....	3
	112

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

<b>ENGLISH</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
ENG	151	Freshman Composition I	3	0	3
ENG	152	Freshman Composition II	3	0	3
ENG	153	Freshman Composition III	3	0	3
ENG	170	Public Speaking	3	0	3
			12	0	12

**SOCIAL SCIENCE**

Any advisor-approved six credit hours of social science

**MATHEMATICS**

May select at least seven hours of Mathematics

MAT	111	Technical Math	3	0	3
MAT	140	Intermediate Algebra	5	0	5
MAT	151	College Algebra & Trigonometry I	5	0	5
MAT	152	College Algebra & Trigonometry II	5	0	5

**SCIENCE**

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

**EDUCATION**

ORI	100	Student Orientation Seminar	1	0	1
EDU	110	Introduction to Trade/Industrial Education	3	0	3
EDU	111	Occupational Analysis & Course Development	3	0	3
EDU	112	Instructional Methods	3	0	3
EDU	113	Shop Organization & Planning	3	0	3
EDU	114	Shop Safety	3	0	3
EDU	117	Instructional Television	1	0	1
EDU	234	AV Materials and Equipment	3	0	3
CAS	118	Computer Applications	2	1	3
			22	3	23

**ELECTIVES**

Any advisor approved twelve hours of electives selected from the following technical prefixes: CJC, DES, DFT, EDU, ELC, ELN, GRA, MEC, RTV, WLD

## BUSINESS ADMINISTRATION T-018

The Business Administration curriculum is designed to prepare an individual for entry into management positions.

The curriculum develops competencies in the application of management principles. Emphasis is placed on skill development in the areas of management functions, computer applications and analysis, critical thinking and decision making techniques, marketing, finance, legal aspects of business, oral and written communications, and the utilization of human resources.

Through the development of management competencies, the graduate will be able to function as a contributing member of a management team.





## BUSINESS ADMINISTRATION T-018 (DAY)

FIRST QUARTER (Fall)			CLASS	LAB	CREDIT
ACC	210	Principles of Accounting I	3	2	4
BUS	100	Introduction to Business	3	0	3
CAS	101	Computer Applications & Concepts	3	0	3
COE	100	Employment Seeking Skills	1	0	1
MAT	107	Mathematics Principles	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
OSC	101	Keyboard/Document Formatting I	2	3	3
			16	5	18
SECOND QUARTER (Winter)					
ACC	211	Principles of Accounting II	3	2	4
BUS	112	Business Finance	3	0	3
BUS	201	Industrial Psychology	3	0	3
BUS	239	Business Mathematics	3	2	4
		Elective	4	0	4
		Elective — Related	3	0	3
			19	4	21
THIRD QUARTER (Spring)					
ACC	212	Principles of Accounting III	3	2	4
BUS	214	Principles of Management	3	0	3
BUS	260	Leadership Development	3	0	3
		CAS or CSC Elective	3	0	3
ENG	151	Freshman Composition I	3	0	3
MKT	132	Sales Development	3	0	3
			18	2	19
FOURTH QUARTER (Fall)					
BUS	224	Human Resource Management	3	0	3
BUS	225	Business Law	3	0	3
BUS	257	Applied Business Communications I	3	0	3
CAS	241	Lotus 1-2-3	3	2	4
ECO	201	Principles of Economics	3	0	3
MKT	120	Marketing	3	0	3
			18	2	19
FIFTH QUARTER (Winter)					
ACC	217	Taxes I	3	2	4
BUS	226	Business Law	3	0	3
ECO	202	Principles of Economics	3	0	3
		Elective—Humanities	3	0	3
ENG	152	Freshman Composition II	3	0	3
MKT	243	Advertising	3	0	3
			18	2	19
SIXTH QUARTER (Spring)					
BUS	216	Principles of Supervision	3	0	3
BUS	227	Business Law	3	0	3
ECO	203	Principles of Economics	3	0	3
		Elective—Related	3	0	3
ENG	153	Freshman Composition III	3	0	3
ENG	170	Public Speaking	3	0	3
			18	0	18
TOTAL CREDIT HOURS					114

**BUSINESS ADMINISTRATION T-018  
(EVENING)**

<b>FIRST QUARTER (Fall)</b>			<b>CLASS</b>	<b>LAB</b>	<b>CREDIT</b>
ACC	210	Principles of Accounting I	3	2	4
BUS	100	Introduction to Business	3	0	3
CAS	101	Computer Applications & Concepts	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
OSC	101	Keyboarding/Document Formatting I	2	3	3
			12	5	14
<b>SECOND QUARTER (Winter)</b>					
ACC	211	Principles of Accounting II	3	2	4
BUS	112	Business Finance	3	0	3
BUS	201	Industrial Psychology	3	0	3
CAS	241	Lotus 1-2-3	3	2	4
			12	4	14
<b>THIRD QUARTER (Spring)</b>					
ACC	212	Principles of Accounting III	3	2	4
BUS	214	Principles of Management	3	0	3
COE	100	Employment Seeking Skills	1	0	1
MAT	107	Mathematics Principles	3	0	3
MKT	132	Sales Development	3	0	3
			13	2	14
<b>FOURTH QUARTER (Summer)</b>					
BUS	239	Business Mathematics	3	2	4
		CAS or CSC Elective	3	0	3
		Elective—Related	3	0	3
ENG	151	Freshman Composition I	3	0	3
			12	2	13
<b>FIFTH QUARTER (Fall)</b>					
BUS	225	Business Law	3	0	3
BUS	257	Applied Business Communications I	3	0	3
ECO	201	Principles of Economics	3	0	3
MKT	120	Marketing	3	0	3
			12	0	12
<b>SIXTH QUARTER (Winter)</b>					
ACC	217	Taxes I	3	2	4
BUS	226	Business Law	3	0	3
ECO	202	Principles of Economics	3	0	3
MKT	243	Advertising	3	0	3
			12	2	13
<b>SEVENTH QUARTER (Spring)</b>					
BUS	216	Principles of Supervision	3	0	3
BUS	227	Business Law	3	0	3
ECO	203	Principles of Economics	3	0	3
		Elective—Related	3	0	3
			12	0	12

**EIGHTH QUARTER (Summer)**

		Elective	4	0	4
		Elective—Humanities	3	0	3
ENG	152	Freshman Composition II	3	0	3
ENG	170	Public Speaking	3	0	3
			13	0	13

**NINTH QUARTER (Fall)**

BUS	224	Human Resource Management	3	0	3
BUS	260	Leadership Development	3	0	3
ENG	153	Freshman Composition III	3	0	3
			9	0	9
		<b>TOTAL CREDIT HOURS</b>			<b>114</b>

**BUSINESS ADMINISTRATION CERTIFICATE T-018**

A certificate of achievement will be awarded upon successful completion (average of "C"-2.00 GPA) of 36 credit hours from the requirements listed.

<b>Required</b>		<b>Credit Hours</b>	
ACC	210	Principles of Accounting I	4
BUS	214	Principles of Management	3
BUS	225	Business Law	3
BUS	239	Business Mathematics	4
ECO	201	Principles of Economics	3
ENG	151, ENG 152, ENG 170 (any two courses)		6
ORI	100	Student Orientation Seminar	1

**\*Electives 12**

\*Elect 12 hours from courses within the Business Administration curriculum. Any course with a grade of below "C" cannot be applied toward the certificate.

<b>TOTAL CREDIT HOURS</b>	<b>36</b>
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## BUSINESS COMPUTER PROGRAMMING T-022

The primary objective of the Business Computer Programming curriculum is to prepare individuals for gainful employment as computer programmers. The objective is fulfilled through study and application in areas such as computer and systems theories and concepts, data processing techniques, business operations, logic, flow charting, programming procedures and languages and types, uses and operation of equipment.

Entry level jobs as computer programmer and computer programmer trainee are available. With experience and additional education, the individual may enter jobs such as data processing manager, computer programmer manager, systems analyst and systems manager.



## BUSINESS COMPUTER PROGRAMMING T-022 (DAY)

FIRST QUARTER (Fall)			CLASS	LAB	CREDIT
CAS	160	Microcomputer Operating Systems	2	2	3
CAS	214	Microsoft Windows	3	0	3
CSC	106	Principles of Problem Solving	3	2	4
*MAT	107	Mathematics Principles	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
OISC	101	Keyboard Document Formatting I	2	3	3
			14	7	17
SECOND QUARTER (Winter)					
ACC	210	Principles of Accounting I	3	2	4
CAS	200	Operating System/400	4	3	5
		Word Processing Requirement	3	2	4
COE	100	Employment Seeking Skills	1	0	1
CSC	210	BASIC Programming	3	2	4
		Elective	3	0	3
			17	9	21
THIRD QUARTER (Spring)					
ACC	211	Principles of Accounting II	3	2	4
BUS	239	Business Mathematics	3	2	4
CSC	215	Visual BASIC Programming	3	2	4
CSC	225	Control Language Programming	3	2	4
ENG	151	Freshman Composition I	3	0	3
			15	8	19
FOURTH QUARTER (Fall)					
BUS	257	Applied Business Communications I	3	0	3
CAS	240	Systems Analysis	3	2	4
CAS	255	Data Communications	3	2	4
CSC	220	RPC/400	4	3	5
		Spreadsheet Requirement	3	2	3
			16	9	20
FIFTH QUARTER (Winter)					
CAS	252	DBASE	3	2	4
CAS	261	Computer Networking Fundamentals	3	0	3
CSC	227	C Programming	3	2	4
		Economics Elective	3	0	3
ENG	152	Freshman Composition II	3	0	3
ENG	170	Public Speaking	3	0	3
			18	4	20
SIXTH QUARTER (Spring)					
ACC	242	Computerized Accounting	3	2	4
CAS	253	Advanced DBASE	3	2	4
CSC	230	COBOL Programming	5	3	6
ENG	153	Freshman Composition III	3	0	3
		Elective—Humanities	3	0	3
			17	7	20
		TOTAL CREDIT HOURS			117

\*Student may elect to take MAT 150/MAT 151 or MAT 151/152 in lieu of MAT 107/BUS 239



**BUSINESS COMPUTER PROGRAMMING T-022  
(EVENING)**

<b>FIRST QUARTER (Fall)</b>			<b>CLASS</b>	<b>LAB</b>	<b>CREDIT</b>
CAS	160	Microcomputer Operating Systems	2	2	3
CSC	106	Principles of Problem Solving	3	2	4
*MAT	107	Mathematics Principles	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
OSC	101	Keyboarding/Document Formatting I	2	3	3
			11	7	14
<b>SECOND QUARTER (Winter)</b>					
CAS	200	Operating System/400	4	3	5
CAS	214	Microsoft Windows	3	0	3
CSC	210	BASIC Programming	3	2	4
			10	5	12
<b>THIRD QUARTER (Spring)</b>					
		Word Processing Requirement	3	2	4
CSC	215	Visual BASIC Programming	3	2	4
CSC	225	Control Language Programming	3	2	4
			9	6	12
<b>FOURTH QUARTER (Summer)</b>					
BUS	239	Business Mathematics	3	2	4
COE	100	Employment Seeking Skills	1	0	1
ENG	151	Freshman Composition I	3	0	3
		Spreadsheet Requirement	3	2	4
			10	4	12
<b>FIFTH QUARTER (Fall)</b>					
CAS	240	Systems Analysis	3	2	4
CAS	255	Data Communications	3	2	4
CSC	220	RPC/400 Programming	4	3	5
			10	7	13
<b>SIXTH QUARTER (Winter)</b>					
ACC	210	Principles of Accounting I	3	2	4
CAS	252	DBASE	3	2	4
CAS	261	Computer Networking Fundamentals	3	0	3
CSC	227	C Programming	3	2	4
			12	6	15
<b>SEVENTH QUARTER (Spring)</b>					
ACC	211	Principles of Accounting II	3	2	4
CAS	253	Advanced DBASE	3	2	4
CSC	230	COBOL Programming	5	3	6
			11	7	14
<b>EIGHTH QUARTER (Summer)</b>					
ACC	242	Computerized Accounting	3	2	4
		Elective	3	0	3
ENG	152	Freshman Composition II	3	0	3
ENG	170	Public Speaking	3	0	3
			12	2	13

**NINTH QUARTER (Fall)**

BUS	257	Applied Business Communications I	3	0	3
		Economics Elective	3	0	3
		Elective—Humanities	3	0	3
ENG	153	Freshman Composition III	3	0	3
			12	0	12
		<b>TOTAL CREDIT HOURS</b>			<b>117</b>

\*Student may elect to take MAT 130/MAT 131 or MAT 151/MAT 152 in lieu of MAT 107/BUS 239.



## COMMERCIAL GRAPHICS

### T-068

The Commercial Graphics curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic communications profession, which deals with the design, illustration, and mechanical preparation of printed promotional material. This curriculum provides the student with a sound, competitive foundation in the creative and/or the technical and mechanical areas of this profession.

The student is trained in the development of the concept and physical design for promotional materials such as newspaper or magazine ads, posters, folders, letterheads, corporate symbols, brochures, booklets, or package illustration. The program of study emphasizes design, advertising, preparation of art for printing, lettering, typesetting, photography, screen printing and offset printing.

Graduates of this curriculum will find employment opportunities with graphic design and commercial art studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and businesses with in-house graphic operations.

#### **Entry Level**

Graphic Designer/Artist  
Illustrator  
Layout Artist  
Paste-Up/Mechanical Artist  
Typographer  
Graphic Arts Technician  
Screen Process Technician  
Small Offset Press Operator  
Photographic Lab Technician  
Print Shop Technician

#### **Advanced Level**

Art Director  
Creative Director/Coordinator  
Advertising Manager  
Advanced Type Composer  
Media Coordinator  
Art Production Coordinator  
Free Lance Artist  
Advance Production Technician  
Production Manager



## COMMERCIAL GRAPHICS T-068

FIRST QUARTER		Course Title	Class Hours	Lab Hours	Credit Hours
ART	151	Fundamentals of Two-Dimensional Design	2	4	4
DES	101	Graphic Layout and Design I	3	3	4
DES	111	Airbrush I	2	3	3
ORI	100	Student Orientation Seminar	1	0	1
PHO	121	Introduction to Photography I	2	6	4
			10	16	16
SECOND QUARTER					
CAS	118	Computer Applications	2	3	3
DES	102	Graphic Layout and Design II	3	3	4
DFT	101	Engineering Drawing I	0	6	3
ENG	151	Freshman Composition I	3	0	3
PHO	122	Photography II	2	6	4
			10	18	17
THIRD QUARTER					
ART	152	Drawing and Composition I	2	3	3
DES	103	Typography and Design III	3	3	4
DES	104	Computer Graphics	2	3	3
ENG	152	Freshman Composition II	3	0	3
PHO	123	Photography III	2	6	4
			12	15	17
FOURTH QUARTER					
DES	105	Graphic Arts	1	6	3
DES	201	Commercial Art I	3	3	4
ENG	153	Freshman Composition III	3	0	3
MAT	111	Technical Mathematics	3	0	3
PSY	260	General Psychology	5	0	5
			15	9	18
FIFTH QUARTER					
DES	202	Commercial Art II	3	3	4
DES	212	Illustration I	3	3	4
GRA	151	Offset Printing I	2	3	3
		Humanities Elective	3	0	3
			11	9	14
SIXTH QUARTER					
ART	153	Life Drawing	2	3	3
DES	203	Commercial Art III	3	3	4
DES	214	Illustration II	3	3	4
GRA	152	Offset Printing II	2	3	3
MKT	210	Advertising, Sales and Promotion	3	2	4
			13	14	18
SEVENTH QUARTER					
DES	204	Commercial Art IV	3	3	4
DES	216	Portfolio Preparation	1	6	3
GRA	153	Silkscreen Printing	1	6	3
		Social Science Elective	3	0	3
		Elective	3	0	3
			11	15	16
<b>TOTAL CREDIT HOURS</b>					<b>116</b>

## CRIMINAL JUSTICE - PROTECTIVE SERVICES TECHNOLOGY T-129

The Criminal Justice Technology curriculum is designed so that it may be a multifaceted program of study. It may consist of study options in correction, law enforcement and security services.

The curriculum is designed with a core of courses to afford one the opportunity to acquire basic knowledge, skills and attitudes in the generally accepted subject areas associated with a two-year study of correctional services, law enforcement services and security services. It includes subjects such as interpersonal communications, law psychology and sociology.

In addition to core subjects, the correctional services option provides an opportunity to study other generally accepted subjects indigenous to a two-year correctional services program such as confinement facility administration, correction law, counseling, probation-parole services and rehabilitation options. Similarly, the law enforcement option provides an opportunity to study other generally accepted subjects included in a two-year law enforcement services program such as criminal behavior, criminal investigation, patrol operation, traffic management, and other aspects of law enforcement administration and operations. The security services option provides an opportunity to study other generally accepted subjects related to a two-year security services program such as accident prevention and safety management, common carrier protection, fire prevention, private security, industrial security, retail security, security systems and surveillance.

Job opportunities are available with federal, state, county and municipal governments. In addition, knowledge, skills and attitudes acquired in this course of study qualify one for job opportunities with private enterprise in such areas as industrial, retail and private security.

## CRIMINAL JUSTICE - PROTECTIVE SERVICES TECHNOLOGY T-129

		Course Title	Class Hours	Lab Hours	Shop/ Clin Hours	Credit Hours
<b>FIRST QUARTER</b>						
CJC	101	Nature and History of Law	5	0	0	5
CJC	102	Introduction to Criminal Justice System	5	0	0	5
ENG	151	Freshman Composition I	3	0	0	3
SOC	160	Introduction to Sociology	5	0	0	5
ORI	100	Student Orientation Seminar	1	0	0	1
			19	0	0	19



**SECOND QUARTER**

CJC	103	The Law Enforcement Officer's Function in Criminal Justice	5	0	0	5
CJC	104	The Court's Function in Criminal Justice	3	0	0	3
MAT	111	Technical Mathematics	3	0	0	3
ENG	152	Freshman Composition II	3	0	0	3
CJC	105	Corrections in Criminal Justice	3	0	0	3
			17	0	0	17

**THIRD QUARTER**

CJC	106	Juvenile Justice	5	0	0	5
CJC	107	Introduction to Criminology	5	0	0	5
SAF	151	First Aid/Community CPR	3	0	0	3
CJC	109	Victimology	3	0	0	3
		Free Elective	3	0	0	3
			19	0	0	19

**FOURTH QUARTER**

SOC	161	Social Problems	3	0	0	3
ENG	170	Public Speaking	3	0	0	3
HIS	260	History of United States I	3	0	0	3
CHM	100	Introduction to Chemistry	3	3	0	4
CAS	160	Microcomputer Operations	2	0	2	3
			14	3	2	16

**FIFTH QUARTER**

CJC	201	Criminal Law I	3	0	0	3
CJC	203	Motor Vehicle Laws of N.C.	5	0	0	5
POL	260	American Government	3	0	0	3
PSY	260	General Psychology	5	0	0	5
			16	0	0	16

**SIXTH QUARTER**

CJC	202	Criminal Law II	3	0	0	3
CJC	204	Criminal Evidence	3	0	0	3
CJC	207	Law of Arrest, Search and Seizure	3	0	0	3
HIS	261	History of United States II	3	0	0	3
CJC	205	Criminal Investigation	5	0	0	5
			17	0	0	17

**SEVENTH QUARTER**

POL	262	American State and Local Government	3	0	0	3
PSY	262	Introduction to Applied Psychology	3	0	0	3
CJC	206	Introduction to Criminalistics	4	0	3	5
CJC	208	Use of Deadly Force	3	0	0	3
CJC	209	Law Enforcement Organization and Administration	3	0	0	3
			16	0	3	17
		TOTAL CREDIT HOURS				121

## BASIC LAW ENFORCEMENT TRAINING T-189

The Basic Law Enforcement Training curriculum certificate program prepares individuals to take the Basic Training Law Enforcement Officers certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or it prepares individuals to take the Justice Officers Basic Training certification examination mandated by the North Carolina Sheriffs' Education and Training Standards Commission. Successful completion of this curriculum certificate program requires that the student satisfy the minimum requirements for certification by the Criminal Justice Commission and/or the Sheriffs' Commission. The student satisfactorily completing this program should possess at least the minimum degree of general attributes, knowledge, and skills to function as an inexperienced law enforcement officer.

Job opportunities are available with state, county, and municipal governments in North Carolina. In addition, knowledge, skills, and abilities acquired in this course of study qualifies one for job opportunities with private enterprises in such areas as industrial, retail, and private security.

The following topics are examples of the topics offered in the Basic Law Enforcement Training Course.

Constitutional Law	Motor Vehicle Laws
Laws of Arrest, Search, Seizure	Criminal Investigation
Mechanics of Arrest	Deviant Behavior
Elements of Criminal Law	ABC Laws
Defense Tactics	Controlled Substances
Juvenile Laws	Traffic Accident Investigation
Emergency Medical Training	Driver Training
Firearms	Testifying in Court
Patrol Techniques	Crisis Management

Students who satisfactorily complete the Basic Law Enforcement Training Course may be given credit for CJC 203, CJC 205, CJC 207, and SAF 151 in the Criminal Justice Curriculum, T-129.

## DRAFTING AND DESIGN ENGINEERING TECHNOLOGY T-043

The drafting and design engineering technology curriculum prepares technicians for drafting and/or designing mechanical parts, mechanisms and mechanical systems.

Emphasis is placed on developing the student's ability to think and plan as well as on the development of drafting and design skills. Computer Aided Drafting (CAD) and conventional equipment will be used to produce drawings such as sectional views, subassemblies and major components of machinery and mechanical systems.

Coursework includes the study of technical drafting and design, materials, applied mechanics, mechanical systems, manufacturing methods, manufacturing processes, applied physics, technical mathematics, descriptive geometry, computer applications and written and oral communications.

Drafting and design technicians are employed in many types of manufacturing, fabrication, research and development and service industries.

## DRAFTING AND DESIGN ENGINEERING TECHNOLOGY T-043

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
DFT	101	Engineering Drawing I	0	6	3
ISC	118	Industrial Safety	3	0	3
MAT	140	Intermediate Algebra	5	0	5
MEC	110	Machine Processes	3	3	4
ORI	100	Student Orientation Seminar	1	0	1
			12	9	16
<b>SECOND QUARTER</b>					
DFT	102	Engineering Drawing II	0	6	3
MAT	151	College Algebra & Trigonometry I	5	0	5
MEC	117	Industrial Material and Processes	3	3	4
MEC	112	Introduction to Manufacturing	3	3	4
			11	12	16
<b>THIRD QUARTER</b>					
DFT	103	Engineering Drawing III	0	6	3
MEC	119	Applied Metallurgy	3	3	4
DFT	220	Computer Aided Drafting & Design I	2	3	3
MAT	152	College Algebra & Trigonometry II	5	0	5
PHY	100	Principles of Technology	3	3	4
			13	15	19

**FOURTH QUARTER**

PSY	260	General Psychology	5	0	5
DDF	201	Design Drafting I	2	6	4
DFT	221	Computer Aided Drafting & Design II	2	3	3
			9	9	12

**FIFTH QUARTER**

ELC	205	Applied Electricity	3	3	4
ENG	151	Freshman Composition I	3	0	3
DFT	211	Mechanisms	3	3	4
CAS	118	Computer Applications	2	3	3
PLA	220	Introduction to Plastics	3	0	3
			14	9	17

**SIXTH QUARTER**

ENG	152	Freshman Composition II	3	0	3
DDF	212	Jig and Fixture Design	3	3	4
HYD	235	Hydraulics and Pneumatics	3	0	3
MEC	113	Numerical Control Principles	3	3	4
		Social Science Elective	3	0	3
			15	6	17

**SEVENTH QUARTER**

ENG	153	Freshman Composition III	3	0	3
MEC	240	Computer Numerical Control Programming	3	3	4
DDF	202	Design Drafting II	2	6	4
		Elective	3	0	3
			11	9	14

**EIGHTH QUARTER**

ENG	170	Public Speaking	3	0	3
DFT	209	Industrial Systems Schematics	2	3	3
MEC	208	Machine Design	3	3	4
		Major Elective	3	0	3
			11	6	13
		TOTAL CREDIT HOURS			124

## **ELECTRONICS ENGINEERING TECHNOLOGY T-045**

The Electronics curriculum provides a basic background in electronic related theory, with practical applications of electronics for business and industry. Courses are designed to develop competent electronics technicians who may work as assistants to engineers or as liaisons between engineers and skilled craftpersons.

The electronics technician will start in one or more of the following areas: research, design, development, production, maintenance or sales. The graduate may begin as an electronics technician, an engineering aide, laboratory technician, supervisor or equipment specialist.



## ELECTRONICS ENGINEERING TECHNOLOGY T-045

		Course Title	Class Hours	Lab Hours	Shop Hours	Credit Hours
<b>FIRST QUARTER</b>						
ELC	100	DC and AC Fundamentals	5	4	3	8
ELN	110	Technical Documentation	2	0	3	3
ENG	151	Freshman Composition I	3	0	0	3
MAT	140	Intermediate Algebra	5	0	0	5
ORI	100	Freshman Orientation Seminar	1	0	0	1
			16	4	6	20
<b>SECOND QUARTER</b>						
ELN	104	Semiconductor Circuits and Applications	5	8	3	10
MAT	151	College Algebra & Trigonometry I	5	0	0	5
ENG	152	Freshman Composition II	3	0	0	3
ELN	111	Fabrication Techniques	1	2	1	1
			14	10	6	21
<b>THIRD QUARTER</b>						
ELN	105	Semiconductor Control Devices	4	4	0	6
		Humanities Elective	3	0	0	3
MAT	152	College Algebra & Trigonometry II	5	0	0	5
ENG	154	Technical Report Writing	3	0	0	3
			15	4	0	17
<b>FOURTH QUARTER</b>						
ELN	217	Linear Integrated Circuits	4	12	0	10
ENG	170	Public Speaking	3	0	0	3
			7	12	0	13
<b>FIFTH QUARTER</b>						
ELN	207	Digital Electronics	5	6	3	9
CAS	160	Microcomputer Applications	2	2	0	3
ECO	201	Principles of Economics	3	0	0	3
PHY	101	Technical Physics I	3	0	3	4
			13	8	6	19
<b>SIXTH QUARTER</b>						
ELN	208	Microprocessor Fundamentals	2	4	3	5
ELN	215	Industrial Electronics	2	4	3	5
CSC	227	"C" Programming	3	2	0	4
BUS	201	Industrial Psychology	3	0	0	3
PHY	102	Technical Physics II	3	0	3	4
			13	10	9	21
<b>SEVENTH QUARTER</b>						
ELN	209	Microprocessor Interfacing	2	4	3	5
ELN	211	Analytic Troubleshooting	2	4	0	4
		Free Elective	3	0	0	3
			7	8	3	12
<b>TOTAL CREDIT HOURS</b>						<b>123</b>





**ELECTRONICS ENGINEERING TECHNOLOGY  
CERTIFICATE PROGRAM T-045  
DESCRIPTION:**

The Basic Electronics Certificate curriculum provides instruction in circuit theory and circuit analysis techniques as well as familiarization with the documentation and fabrication skills required to design, construct, and maintain all types of analog electronic equipment.

<b>Basic Electronics Certificate</b>			<b>Credit Hours</b>
ELC	100	DC and AC Fundamentals	8
ELN	110	Technical Documentation	3
ELN	104	Semiconductor Circuits & Applications	10
ELN	111	Fabrication Techniques	3
ELN	105	Semiconductor Control Devices	6
ELN	217	Linear Integrated Circuits	10
		Total Hours	40

The Digital Electronics Certificate curriculum provides advanced instruction in digital control circuits and in microprocessor interfacing applications.

<b>Digital Electronics Certificate</b>			<b>Credit Hours</b>
ELN	207	Digital Electronics	9
ELN	208	Microprocessor Fundamentals	5
ELN	209	Microprocessor Interfacing	5
		Total Hours	19



## GENERAL TECHNOLOGY CURRICULUM CORE T-201

General Technology Curriculum Core is designed as a career mobility program for technical students to acquire the general education and related courses in subject areas such as humanities, communications, social sciences, and theoretical and applied sciences such as biology, chemistry, physics, mathematics, general computer studies and general graphics (drafting) that are foundation courses to specific curriculums in the technical field. After completion of this certificate curriculum the student has job skills for occupations requiring communications skills and/or science and mathematics. The student may take this program as the first level in a specific technical curriculum as an intended objective component of that technical curriculum. Students may also take this program for transfer to a technical curriculum at another community college system institution either prior to or concurrently with enrollment at the institution at which they intend to pursue or are pursuing a technical curriculum degree.

		Course Title	Class	Lab	Shop/ Clin	Credit
FIRST QUARTER			Hours	Hours	Hours	Hours
		MAJOR COURSES	0	0	0	0
		RELATED COURSES				
BIO	151	Principles of Biology I	3	3	0	4
CAS	160	Microcomputer Operations	2	2	0	3
MAT	150	Intermediate Algebra	5	0	0	5
		*Electives	2	0	0	2
		Totals	19	5	0	21
		<b>GENERAL EDUCATION</b>				
ENG	151	Freshman Composition I	3	0	0	3
ENG	152	Freshman Composition II	3	0	0	3
ENG	153	Freshman Composition III	3	0	0	3
PSY	260	General Psychology	3	0	0	3
SOC	160	Introduction to Sociology	3	0	0	3
ENG	170	Public Speaking	3	0	0	3
		Totals	18	0	0	18
ELECTIVES			6	0	0	6
		<b>TOTAL CREDITS</b>				<b>45</b>

\*Related electives may be taken from curriculum of choice

## INDUSTRIAL MANAGEMENT TECHNOLOGY T-049

The Industrial Management Curriculum is designed to provide an individual with the ability to function effectively in supervisory and middle-management positions in industry. This program emphasizes study and application in areas such as business and industrial management, production methods and schedules, inventory control, work analysis, motivation techniques, and human relations.

This curriculum is designed to prepare the individual to enter supervisory or middle-management positions, to provide an educational program for upgrading or retraining, and to provide an opportunity for the individual wanting to fulfill professional or general interest needs.

### INDUSTRIAL MANAGEMENT TECHNOLOGY T-049 (EVENING)

FIRST QUARTER (Fall)			CLASS	LAB	CREDIT
ACC	210	Principles of Accounting I	3	2	4
BUS	100	Introduction to Business	3	0	3
CAS	101	Computer Applications and Concepts	3	0	3
ISC	121	Industrial Engineering Applications	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
			13	2	14
SECOND QUARTER (Winter)					
ACC	211	Principles of Accounting II	3	2	4
BUS	112	Business Finance	3	0	3
BUS	201	Industrial Psychology	3	0	3
MAT	107	Mathematics Principles	3	0	3
			12	2	13
THIRD QUARTER (Spring)					
BUS	214	Principles of Management	3	0	3
BUS	216	Principles of Supervision	3	0	3
BUS	239	Business Mathematics	3	2	4
COE	100	Employment Seeking Skills	1	0	1
		Elective	3	0	3
			13	2	14
FOURTH QUARTER (Summer)					
CAS	241	Lotus 1-2-3	3	2	4
		Elective	3	0	3
		Elective—Humanities	3	0	3
ENG	151	Freshman Composition I	3	0	3
			12	2	13
FIFTH QUARTER (Fall)					
BUS	225	Business Law	3	0	3
BUS	257	Applied Business Communications I	3	0	3
MKT	120	Marketing	3	0	3
			9	0	9

**SIXTH QUARTER (Winter)**

ECO	225	Business & Economic Statistics	3	0	3
ECO	250	Managerial Economics	3	0	3
ISC	111	Occupational Safety & Health	3	0	3
			9	0	9

**SEVENTH QUARTER (Spring)**

BUS	217	Advanced Supervision	3	0	3
ISC	113	Statistical Quality Control	3	0	3
ISC	221	Production Planning & Management	3	0	3
		Related Elective	4	0	4
			13	0	13

**EIGHTH QUARTER (Summer)**

BUS	218	Wage & Salary Administration	3	0	3
ECO	261	Labor Economics	3	0	3
ENG	152	Freshman Composition II	3	0	3
ENG	170	Public Speaking	3	0	3
			12	0	12

**NINTH QUARTER (Fall)**

BUS	224	Human Resource Management	3	0	3
BUS	260	Leadership Development	3	0	3
BUS	170	Business & Social Environment	3	0	3
ENG	153	Freshman Composition III	3	0	3
			12	0	12
		TOTAL CREDIT HOURS			109

**INDUSTRIAL MANAGEMENT TECHNOLOGY CERTIFICATE****T-049**

				<b>Credit Hours</b>
BUS	201	Industrial Psychology		3
BUS	214	Principles of Management		3
BUS	216	Principles of Supervision		3
BUS	239	Business Mathematics		4
BUS	257	Applied Business Communications I		3
CAS	101	Computer Applications & Concepts		3
		Elective		2
ENG	151	Freshman Composition I		3
ENG	152	Freshman Composition II		3
ISC	111	Occupational Safety and Health		3
ISC	113	Statistical Quality Control		3
ISC	221	Production Planning and Management		3

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

TOTAL CREDIT HOURS 36

## INSURANCE TECHNICAL SPECIALTY T-229

The purpose of this curriculum is to provide the courses to meet the education requirements for state licensing examinations for agents in selected areas such as Life, Accident and Health; Accident and Health; Medicare Supplement/Long Term Care; Fire and Casualty; National Association of Security Dealers; and Adjusters.

An additional purpose of the curriculum is to provide the first of a series of preparatory courses for sitting for examinations that are nationally recognized designations. The nationally recognized designations may include those such as Chartered Life Underwriter (CLU), Chartered Financial Consultant (ChFC), Chartered Property and Casualty Underwriter (CPCU), Life Underwriter Training Council Fellow (LUTCF), Fellow Life Management Institute (FLMI), Certified Employee Benefit Specialist (CEBS), and Agency Management Training Course (AMTC).

Employment opportunities may be found in insurance companies, insurance agencies, banks, savings and loans, credit unions, stock brokerage firms, auto dealerships, real estate firms, independent adjusting companies, and human resource divisions in business establishments.

## INSURANCE TECHNICAL SPECIALTY T-229

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER (FALL)</b>					
INS	273	Life, Accident and Health Insurance	4	0	4
INS	274	Property and Liability Insurance	4	0	4
INS	275	Medicare Supplement and Long-Term Care	1 9	0 0	1 9
<b>SECOND QUARTER</b>					
INS	278	Personal Risk Management and Insurance II - CLU	4	0	4
INS	280	Income Taxation - CLU	4 8	0 0	4 8
TOTAL HOURS					17



## MARKETING AND RETAILING T-020

The Marketing and Retailing curriculum is designed to prepare the individual for entry into middle-management positions in various marketing and retailing businesses and industries. This purpose will be fulfilled through study and application in areas such as marketing and merchandising techniques, management, selling, advertising, retailing, and credit and collection procedures.

Through knowledge and skills, the individual will be able to perform marketing and distribution activities and through the development of personal competencies and qualities will be provided the opportunity to enter an array of marketing and distribution jobs.

### MARKETING AND RETAILING T-020 (DAY)

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER (FALL)</b>					
MKT	120	Marketing	3	0	3
BUS	100	Introduction to Business	3	0	3
OSC	101	Keyboarding/Document Formatting I	2	3	3
MAT	107	Mathematics Principles	3	0	3
ACC	210	Principles of Accounting I	3	2	4
COE	100	Employment Seeking Skills	1	0	1
ORI	100	Student Orientation Seminar	1	0	1
			16	5	18
<b>SECOND QUARTER (WINTER)</b>					
*MKT	121	Retailing	3	0	3
MKT	243	Advertising	3	0	3
BUS	112	Business Finance	3	0	3
ACC	211	Principles of Accounting II	3	2	4
BUS	239	Business Mathematics	3	2	4
BUS	201	Industrial Psychology	3	0	3
			18	4	20
<b>THIRD QUARTER (SPRING)</b>					
MKT	132	Sales Development	3	0	3
ACC	212	Principles of Accounting III	3	2	4
BUS	214	Principles of Management	3	0	3
		Related Elective	3	0	3
ENG	151	Freshman Composition I	3	0	3
BUS	101	Professional Development	3	0	3
			18	2	19
<b>FOURTH QUARTER (FALL)</b>					
BUS	225	Business Law	3	0	3
BUS	257	Applied Business Communications	3	0	3
ECO	201	Principles of Economics	3	0	3
CAS	101	Computer Applications and Concepts	3	0	3
CAS	241	Lotus 1-2-3	3	2	4
		Related Elective	3	0	3
			18	2	19

**FIFTH QUARTER (WINTER)**

*MKT	249	Buying and Merchandising	3	0	3
BUS	226	Business Law	3	0	3
ECO	202	Principles of Economics	3	0	3
ENG	152	Freshman Composition II	3	0	3
ENG	170	Public Speaking	3	0	3
		Elective—Humanities	3	0	3
			18	0	18

**SIXTH QUARTER (SPRING)**

*MKT	260	Commercial Display and Design	2	3	3
BUS	216	Principles of Supervision	3	0	3
*BUS	223	Credit Procedures and Problems	3	0	3
BUS	260	Leadership Development	3	0	3
ENG	153	Freshman Composition III	3	0	3
		Elective	3	0	3
			17	3	18
		<b>TOTAL CREDIT HOURS</b>			<b>112</b>

\*Major courses are offered only when there is sufficient enrollment.

## MECHANICAL ENGINEERING TECHNOLOGY T-051

The Mechanical Engineering Technology curriculum prepares technicians to assist engineers in the 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, friction and vibration. The scope of subject matter covered prepares the graduate for employment in greatly diversified branches of the mechanical field.

The graduate may wish to work with testing experimental machinery and equipment and analyzing the results. Typical of such devices are internal combustion engines, steam turbines, jet and rocket engines, nuclear reactors, refrigeration and air conditioning equipment, missiles, spacecraft, marine equipment, motor vehicles, railroad equipment and machines for specialized industries such as textile mills. Another specialty area graduates may wish to pursue is that of the tool designer. Tool designers design tools and devices for the mass production of manufactured articles. They may also work with the instrumentation and design of machine tools or in equipping plants or mills which require special construction to accommodate power-producing or transmitting machinery.



## MECHANICAL ENGINEERING TECHNOLOGY T-051

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
MEC	101	Manufacturing Processes I	3	9	6
MAT	140	Intermediate Algebra	5	0	5
ISC	118	Industrial Safety	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
			12	9	15
<b>SECOND QUARTER</b>					
MEC	102	Manufacturing Processes II	3	9	6
DFT	101	Engineering Drawing I	0	6	3
MAT	151	College Algebra & Trigonometry I	5	0	5
MEC	117	Industrial Materials & Processes	3	3	4
			11	18	18
<b>THIRD QUARTER</b>					
MEC	103	Manufacturing Processes III	3	9	6
DFT	102	Engineering Drawing II	0	6	3
MEC	119	Applied Metallurgy	3	3	4
MAT	152	College Algebra & Trigonometry II	5	0	5
			11	18	18
<b>FOURTH QUARTER</b>					
MEC	104	Manufacturing Processes IV	3	9	6
PLA	220	Introduction to Plastics	3	0	3
		Social Science Elective	3	0	3
		Humanities Elective	3	0	3
			12	9	15
<b>FIFTH QUARTER</b>					
ELC	205	Applied Electricity	3	3	4
PHY	101	Technical Physics I	3	3	4
ENG	151	Freshman Composition I	3	0	3
CAS	118	Computer Applications	2	3	3
		Free Elective	3	0	3
			14	9	17
<b>SIXTH QUARTER</b>					
MEC	113	Numerical Control Principles	3	3	4
PHY	102	Technical Physics II	3	3	4
ENG	152	Freshman Composition II	3	0	3
HYD	235	Hydraulics and Pneumatics	3	0	3
			12	6	14
<b>SEVENTH QUARTER</b>					
ENG	153	Freshman Composition III	3	0	3
MEC	204	Applied Mechanics	5	0	5
MEC	240	Computer Numerical Control Programming	3	3	4
DFT	220	Computer Aided Drafting and Design I	2	3	3
			13	6	15
<b>EIGHTH QUARTER</b>					
MEC	208	Machine Design	3	3	4
MEC	205	Strength of Materials	5	0	5
ENG	170	Public Speaking	3	0	3
ISC	236	Manufacturing Quality Control	3	0	3
			14	3	15
<b>TOTAL CREDIT HOURS</b>					<b>127</b>

## MICROCOMPUTER SYSTEMS TECHNOLOGY T-192

The purpose of the Microcomputer Systems Technology curriculum is to prepare graduates for employment with business, industry, and government organizations that use or are planning to use computers to process and manage information.

Using microcomputers or other small computer systems, students will learn to apply a variety of commonly used business applications and systems software; set up microcomputer hardware and install software; develop user training programs and user documentation; evaluate and recommend hardware and software; assist users in resolving hardware and software problems; and develop control and security procedures. Students will also learn the fundamentals of microcomputer networking.



## MICROCOMPUTER SYSTEMS TECHNOLOGY T-192 (Day)

FIRST QUARTER (Fall)			CLASS	LAB	CREDIT
CAS	160	Microcomputer Operating Systems	2	2	3
CAS	214	Microsoft Windows	3	0	3
CSC	106	Principles of Problem Solving	3	2	4
*MAT	107	Mathematics Principles	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
OSC	101	Keyboarding/Document Formatting I	2	3	3
			14	7	17
SECOND QUARTER (Winter)					
*BUS	239	Business Mathematics	3	2	4
CAS	101	Computer Applications and Concepts	3	0	3
		Word Processing Requirement	3	2	4
		Spreadsheet Requirement	3	2	4
COE	100	Employment Seeking Skills	1	0	1
CSC	210	Basic Programming	3	2	4
			16	8	20
THIRD QUARTER (Spring)					
		Advanced Spreadsheet Requirement	3	2	4
		Advanced Word Processing Requirement	3	2	4
CAS	212	PC Installation and Maintenance	3	2	4
ENG	151	Freshman Composition I	3	0	3
		Related Elective	3	0	3
			15	6	18
FOURTH QUARTER (Fall)					
ACC	210	Principles of Accounting I	3	2	4
BUS	257	Applied Business Communications I	3	0	3
CAS	240	Systems Analysis	3	2	4
CAS	250	Computer Training & Support	3	0	3
CAS	255	Data Communications	3	2	4
		Related Elective	3	0	3
			18	6	21
FIFTH QUARTER (Winter)					
ACC	211	Principles of Accounting II	3	2	4
CAS	208	Desktop Publishing	3	2	4
CAS	252	DBASE	3	2	4
CAS	261	Networking Fundamentals	3	0	3
		Economics Elective	3	0	3
ENG	152	Freshman Composition II	3	0	3
			18	6	21
SIXTH QUARTER (Spring)					
ACC	242	Computerized Accounting	3	2	4
CAS	253	Advanced DBASE	3	2	4
		Elective	3	0	3
		Elective—Humanities	3	0	3
ENG	153	Freshman Composition III	3	0	3
ENG	170	Public Speaking	3	0	3
			18	4	20
		TOTAL CREDIT HOURS			117

\*Student may elect MAT 150/MAT 151 or MAT 151/MAT 152 in lieu of MAT 107/BUS 239.



## MICROCOMPUTER SYSTEMS TECHNOLOGY T-192 (Evening)

FIRST QUARTER (Fall)			CLASS	LAB	CREDIT
CAS	101	Computer Applications and Concepts	3	0	3
CAS	160	Microcomputer Operating Systems	2	2	3
CSC	106	Principles of Problem Solving	3	2	4
ORI	100	Student Orientation Seminar	1	0	1
OSC	101	Keyboarding/Document Formatting I	2	3	3
			11	7	14
SECOND QUARTER (Winter)					
		Word Processing Requirement	3	2	4
CAS	214	Microsoft Windows Spreadsheet Requirement	3	0	3
			3	2	4
CSC	210	BASIC Programming	3	2	3
			12	6	15
THIRD QUARTER (Spring)					
		Advanced Spreadsheet Requirement	3	2	4
		Advanced Word Processing Requirement	3	2	4
		Related Elective	3	0	3
*MAT	107	Mathematics Principles	3	0	3
			12	4	14
FOURTH QUARTER (Summer)					
*BUS	239	Business Mathematics	3	2	4
COE	100	Employment Seeking Skills	1	0	1
		Related Elective	3	0	3
		Elective—Humanities	3	0	3
			10	2	11
FIFTH QUARTER (Fall)					
ENG	151	Freshman Composition I	3	0	3
CAS	240	Systems Analysis	3	2	4
CAS	250	Computer Training and Support	3	0	3
CAS	255	Data Communications	3	2	3
			12	4	14
SIXTH QUARTER (Winter)					
ACC	210	Principles of Accounting I	3	2	4
CAS	208	Desktop Publishing	3	2	4
CAS	252	DBASE	3	2	4
CAS	261	Networking Fundamentals	3	0	3
			12	6	15
SEVENTH QUARTER (Spring)					
ACC	211	Principles of Accounting II	3	2	4
CAS	253	Advanced DBASE	3	2	4
CAS	212	PC Installation and Maintenance	3	2	4
ENG	152	Freshman Composition II	3	0	3
			12	6	15

**EIGHTH QUARTER (Summer)**

ACC	242	Computerized Accounting	3	2	4
		Elective	3	0	3
ENG	170	Public Speaking	3	0	3
			9	2	10

**NINTH QUARTER (FALL)**

		Economics Elective	3	0	3
BUS	257	Applied Business Communications I	3	0	3
ENG	153	Freshman Composition III	3	0	3
			9	0	9
		TOTAL CREDIT HOURS			117

\*Student may elect MAT 150/MAT 151 or MAT 151/MAT 152 in lieu of MAT 107/BUS 239.

## RADIO AND TV BROADCASTING TECHNOLOGY T-179

Students enrolled in the Radio and TV Broadcasting Technology curriculum have a variety of careers from which to choose. They learn to speak well on microphone and on camera with and without scripts. They learn how to operate the camera, run the audio control board and direct the whole program. Courses in the curriculum also teach students the legal aspects of broadcasting, how to manage a broadcast operation, how to troubleshoot equipment, and how to write and produce both audio and video programming. Technical courses included are designed to give students an understanding of electronics and broadcast equipment.

Upon completion they are well prepared to write, produce, perform and direct production. They can also function as technicians and have an understanding of how their equipment works.

Graduates of the curriculum may find employment in radio or television stations, cable TV companies, public relations and advertising agencies, recording studios, production houses, and industrial or educational media.

Program Director	Public Service Director
Music Director	Announcer
Music Librarian	Reporter
Production Manager	Newswriter
Production Assistant	Newscaster
Copy Writer	Camera Operator
Producer	Floor Manager
Director	Technical Director
Audio Engineer	Account Executive
Traffic Director	Videotape Operator
Traffic Assistant	Media Coordinator

A certificate in Radio and TV Broadcasting may be obtained by taking a total of 75 hours consisting of:

- RTV 116, 201, 203, 204, 205, 206, 208, 211, 212, 218, 221, 223, 226, 227
- ENG 151, 152, 170
- OSC 101, CAS 118, MKT 210

## RADIO AND TV BROADCASTING TECHNOLOGY T-179

<b>FIRST QUARTER</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
OSC	101	Keyboarding/Document Formatting I	2	3	3
RTV	201	Introduction to Broadcasting	5	0	5
RTV	203	Expression in the Media	5	0	5
ENG	151	Freshman Composition I	3	0	3
ORI	100	Student Orientation Seminar	1	0	1
			16	3	17
<b>SECOND QUARTER</b>					
RTV	204	Audio Production I	3	8	7
RTV	206	Writing for Broadcasting	3	2	4
RTV	220	Introduction to TV Systems	5	4	7
ENG	152	Freshman Composition II	1	0	1
			14	14	21
<b>THIRD QUARTER</b>					
RTV	116	Broadcasting Announcing	3	3	4
RTV	222	Industrial/Instructional TV	4	0	4
MAT	111	Technical Mathematics	3	0	3
RTV	208	Audio Production II	2	8	6
			12	11	17
<b>FOURTH QUARTER</b>					
		Elective/Humanities	3	0	3
RTV	207	Video Production I	3	8	7
RTV	205	Broadcast Programming	1	0	1
			9	8	13
<b>FIFTH QUARTER</b>					
RTV	209	Video Production II	2	8	6
RTV	211	Broadcast Journalism	3	6	6
ELC	205	Applied Electricity	3	3	4
BUS	257	Applied Business Communications I	1	0	1
			11	17	19
<b>SIXTH QUARTER</b>					
		Elective/Social Science	3	0	3
ENG	170	Public Speaking	3	0	3
PSY	260	General Psychology	5	0	5
RTV	226	Supervised Work Experience I	1	10	2
CAS	118	Computer Applications	2	3	3
MKT	210	Advertising, Sales and Promotion	1	2	1
			17	15	20
<b>SEVENTH QUARTER</b>					
RTV	212	Broadcast Operations	3	0	3
RTV	223	Broadcasting Management	3	0	3
RTV	218	Broadcast Law	3	0	3
RTV	221	Troubleshooting Broadcast Equipment	2	3	3
RTV	227	Supervised Work Experience II	1	10	2
		Free Elective	1	0	1
			15	13	17
		<b>TOTAL CREDIT HOURS</b>			<b>124</b>

## RADIO AND TV BROADCASTING CERTIFICATE PROGRAM T-179

The Radio and Television curriculum is designed to offer the student the opportunity to acquire basic skills and the related technical information necessary to gain employment in the non-technical areas of professional broadcasting.

The program of study provides the students with sufficient training to perform such duties as announcing, advertising sales, copy writing, commercial and program production, studio and control room equipment operation, traffic and log maintenance, news gathering, writing and reporting. The graduate will find employment in the broadcasting industry.

<b>FIRST QUARTER</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
RTV	116	Broadcasting Announcing	3	3	4
RTV	201	Introduction to Broadcasting	5	0	5
RTV	203	Expression in the Media	5	0	5
RTV	204	Audio Production I	3	8	7
RTV	205	Broadcast Programming	3	0	3
RTV	206	Writing for Broadcasting	3	2	4
RTV	208	Audio Production II	2	8	6
RTV	211	Broadcast Journalism	3	6	6
RTV	212	Broadcast Operations	3	0	3
RTV	218	Broadcast Law	3	0	3
RTV	221	Troubleshooting Broadcast Equipment	2	3	3
RTV	223	Broadcasting Management	3	0	3
RTV	226	Supervised Work Experience I	1	10	2
RTV	227	Supervised Work Experience II	1	10	2
OSC	101	Keyboarding Document Formatting I	2	3	3
MKT	210	Advertising, Sales and Promotion	3	2	4
CAS	118	Computer Applications	2	3	3
ENG	151	Freshman Composition I	3	0	3
ENG	152	Freshman Composition II	3	0	3
ENG	170	Public Speaking	3	0	3
<b>TOTAL CREDIT HOURS</b>					<b>75</b>

## REAL ESTATE TECHNICAL SPECIALTY T-166

<b>FIRST QUARTER</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
RLS	121	Real Estate Math	3	0	3
RLS	230	Real Estate Fundamentals	6	0	6
			<b>9</b>	<b>0</b>	<b>9</b>
<b>SECOND QUARTER</b>					
RLS	122	Real Estate Brokerage	3	0	3
RLS	231	Real Estate Finance	3	0	3
RLS	238	Real Estate Law	3	0	3
			<b>9</b>	<b>0</b>	<b>9</b>
<b>TOTAL CREDIT HOURS</b>					<b>18</b>

## TEACHER ASSOCIATE T-088

The Teacher Associate curriculum is designed to prepare individuals to work in learning environments for children in kindergarten through middle childhood. The program of study includes such subjects as child growth and development, foundations of education, and materials and methods for implementing the public school curriculum. Students work under the supervision of the classroom teacher to perform general instructional, clerical or tutorial duties. The program of study combines theories and principles with supervised practice.

Graduates are prepared to work in public and private schools as assistants to the classroom teachers.

## TEACHER ASSOCIATE T-088

			Hours Per Week			Quarter
			Class	Lab	Clinical	Hours Credit
<b>FIRST QUARTER</b>						
PSY	115	Child Growth and Development I	3	0	0	3
EDU	101	Foundations in Childhood Education	3	0	0	3
ENG	151	Freshman Composition I	3	0	0	3
PSY	260	General Psychology	5	0	0	5
SAF	151	First Aid/Community CPR	3	0	0	3
ORI	100	Student Orientation Seminar	1	0	0	1
			18	0	0	18
<b>SECOND QUARTER</b>						
PSY	116	Child Growth and Development II	3	0	0	3
EDU	103	Teacher Associate Principles and Practices	3	0	0	3
SOC	160	Introduction to Sociology	5	0	0	5
ENG	152	Freshman Composition II	3	0	0	3
COE	254	Practicum	0	0	10	1
EDU	244	Seminar I: School Age Environment	1	0	0	1
		Mathematics Elective	1	0	0	1
			18	0	10	19
<b>THIRD QUARTER</b>						
PSY	117	Child Growth and Development III	3	0	0	3
EDU	122	Child Health, Safety, and Nutrition	4	0	0	4
EDU	125	Creative Activities in Early Childhood	5	0	3	6
		Humanities Elective	3	0	0	3
ENG	153	Freshman Composition III	1	0	0	1
			18	0	3	19
<b>FOURTH QUARTER</b>						
EDU	205	Behavior Management	3	0	0	3
EDU	228	Math Methods & Materials for Children	2	3	0	3
EDU	225	Working with Children with Special Needs	5	3	0	6
		Related Elective	3	0	0	3
		Free Elective	1	0	0	1
			16	6	0	18



**FIFTH QUARTER**

EDU	216	Communication Activities in Early Childhood	5	0	3	6
EDU	223	Working with the Child's Family and Community	3	0	0	3
EDU	229	Reading and Writing Methods and Materials for Children	2	3	0	3
COE	255	Practicum	0	0	10	1
EDU	245	Seminar II: Special Needs Environment	1	0	0	1
		Related Elective	3	0	0	3
		Science Elective	3	0	0	3
			17	3	13	20

**SIXTH QUARTER**

EDU	233	Curriculum Principles in Elementary School	5	0	0	5
ENG	170	Public Speaking	3	0	0	3
EDU	217	Exploration Activities in Early Childhood	5	0	3	6
COE	256	Practicum	0	0	20	2
EDU	246	Seminar III	2	0	0	2
			15	0	23	18
		TOTAL CREDIT HOURS				112

## 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:

V001 Automotive Body Repair	V018 Electrical Installation
V003 Automotive Mechanics	V032 Machinist
V067 Child Care Worker	V038 Practical Nursing
V009 Cosmetology	V050 Welding

### AUTOMOTIVE BODY REPAIR V-001

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 repairperson, automotive painter and frame and chassis repairperson. Persons completing this curriculum may find employment with franchised automobile dealers, independent garages, or may start their own business.

### AUTOMOTIVE BODY REPAIR V-001

FIRST QUARTER		Course Title	Class Hours	Lab Hours	Credit Hours
AUT	1120	Auto Body Repair I	4	0	4
AUT	1130	Auto Body Repair Shop I	0	15	5
WLD	1123	Auto Body Welding I	2	6	4
MAT	1101	Math Fundamentals	3	0	3
			9	21	16

**SECOND QUARTER**

AUT	1121	Auto Body Repair II	4	0	4
AUT	1131	Auto Body Repair Shop II	0	15	5
WLD	1124	Auto Body Welding II	2	6	4
AUT	1106	Automotive Wiring	2	6	4
			8	27	17

**THIRD QUARTER**

AUT	1122	Auto Body Repair III	4	0	4
AUT	1132	Auto Body Repair Shop III	0	15	5
PHY	100	Principles of Technology	3	3	4
AUT	1124	Painting Materials & Practice	5	3	6
			12	21	19

**FOURTH QUARTER**

AUT	1123	Auto Body Repair IV	4	0	4
AUT	1133	Auto Body Repair Shop IV	0	15	5
ENG	1101	Communication Skills	3	0	3
PSY	1100	Human Relations	3	0	3
			10	15	15
		<b>TOTAL CREDIT HOURS</b>			<b>67</b>

**AUTOMOTIVE BODY REPAIR  
CERTIFICATE  
V-001**

**FIRST QUARTER**

AUT	1201	Auto Body Repair I	2	15	7
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**SECOND QUARTER**

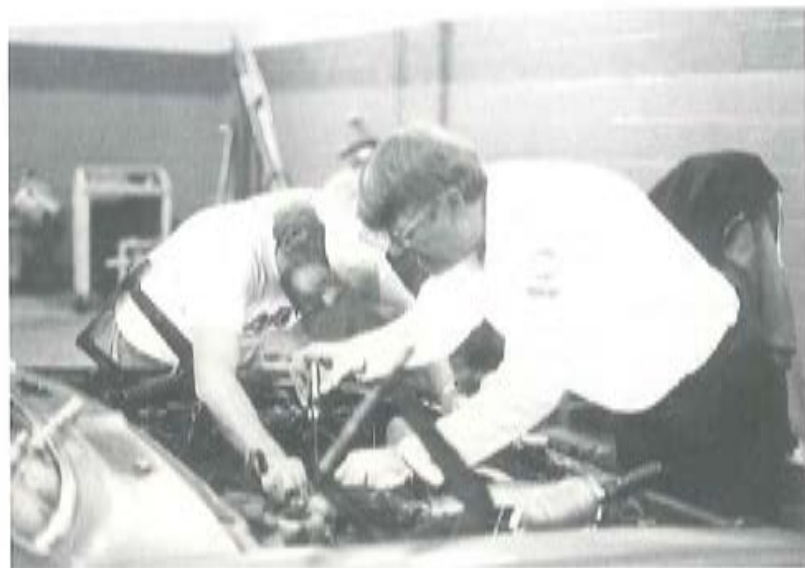
AUT	1202	Auto Body Repair II	2	15	7
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**THIRD QUARTER**

AUT	1203	Auto Body Repair III	2	15	7
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**FOURTH QUARTER**

AUT	1204	Auto Body Repair IV	2	15	7
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## AUTOMOTIVE MECHANICS V-003

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 are taught through class assignments, discussions, and shop practices.

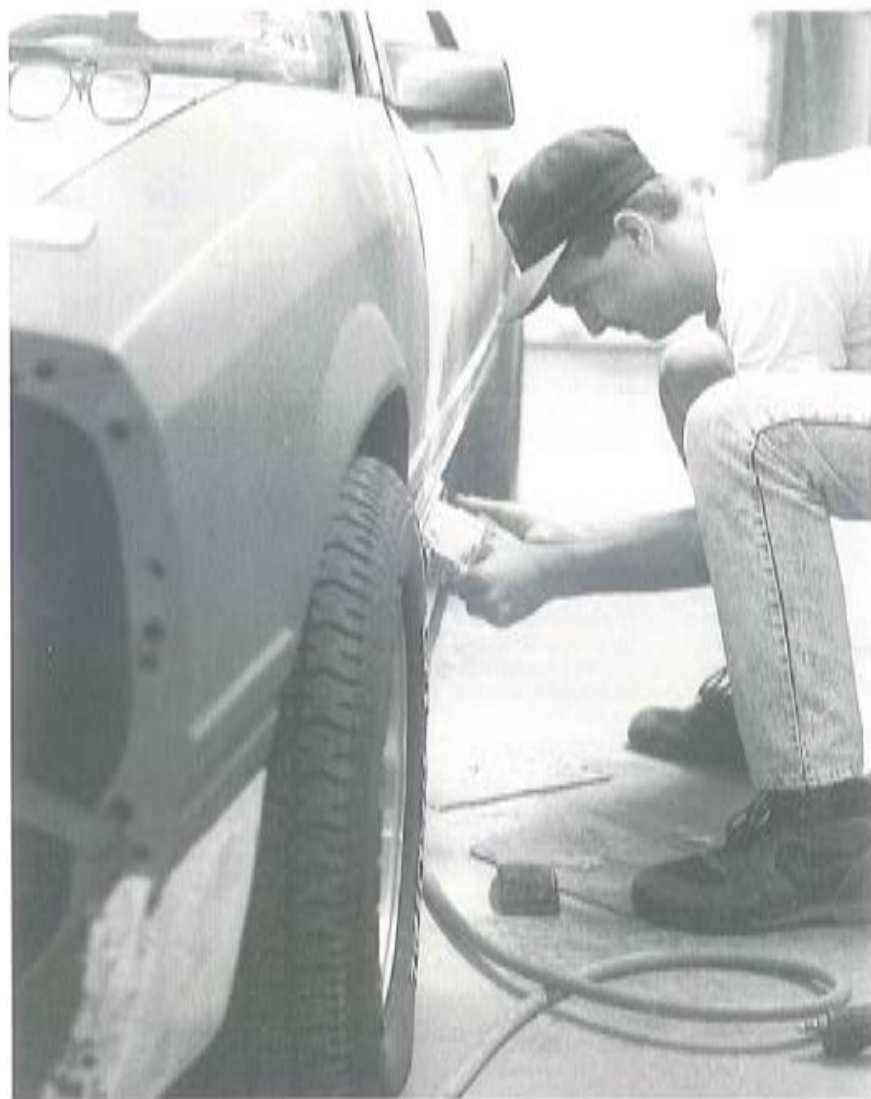
Automobile mechanics maintain and repair mechanical, electrical and body parts of passenger cars, trucks and buses. In some communities and rural areas they also may service tractors or marine engines and other gasoline-powered equipment. Mechanics inspect and test to determine the causes of faulty operation. 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. Persons completing this curriculum may find employment with franchised automobile dealers, independent garages, or may start their own business.

## AUTOMOTIVE MECHANICS V-003

FIRST QUARTER		Course Title	Class Hours	Lab Hours	Credit Hours
AUT	1101	Automotive Engine, Electrical Fuel Systems	2	15	7
AUT	1111	Automotive Schematics and Diagrams	2	3	3
AUT	1116	Automotive Problems	3	3	4
MAT	1101	Math Fundamentals	3	0	3
			10	21	17
SECOND QUARTER					
AUT	1102	Automotive Brakes, Chassis and Suspension	2	15	7
AUT	1112	Automotive Schematics and Diagrams: Power Mechanics (Electrical and Fuel Systems)	2	3	3
MAT	111	Technical Math	3	0	3
AUT	1126	Automobile Servicing I	1	1	2
			8	21	15
THIRD QUARTER					
AUT	1103	Automotive Internal Combustion Engines	2	15	7
AUT	1113	Automotive Schematics and Diagrams	1	3	2
BUS	1100	Small Business Operations	2	0	2
PHY	100	Principles of Technology	3	3	4
			8	21	15
FOURTH QUARTER					
AUT	1104	Automotive Power Train Systems	2	15	7
PSY	1100	Human Relations	3	0	3
ENG	1101	Communication Skills	3	0	3
AUT	1125	Automotive Air Conditioning	3	3	4
			11	18	17
<b>TOTAL CREDIT HOURS</b>					<b>64</b>

## AUTOMOTIVE MECHANICS CERTIFICATE V-003

	<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
<b>FIRST QUARTER</b>				
AUT 1101	Automotive Engine, Electrical Fuel Systems	2	15	7
<b>SECOND QUARTER</b>				
AUT 1102	Automotive Brakes, Chassis and Suspension	2	5	7
<b>THIRD QUARTER</b>				
AUT 1103	Automotive Internal Combustion Engines	2	15	7
<b>FOURTH QUARTER</b>				
AUT 1104	Automotive Power Train Systems	2	15	7



## CHILD CARE WORKER V-067

The Child Care Worker curriculum prepares individuals to work as assistants with early childhood specialists in day care centers, nursery schools, kindergartens, child development centers, hospitals, institutions, camps and recreation centers. This curriculum provides course work to meet the requirements for entry level employment and upgrading or retraining of staff in child care facilities.

Instruction includes theory and application in child care, growth and development of children, behavior patterns of children, health practices and how to deal with the emotional and physical problems of children.

### CHILD CARE WORKER V-067

<b>FIRST QUARTER</b>		<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
PSY	115	Child Growth and Development I	3	0	3
EDU	107	Child Administration, Supervision and Standards	5	4	7
SAF	151	First Aid/Community CPR	3	0	3
EDU	104	Child Care Credential I	3	0	3
COE	250	Practicum	0	10	1
EDU	240	Seminar I	1	0	1
			15	14	18
<b>SECOND QUARTER</b>					
PSY	116	Child Growth and Development II	3	0	3
MAT	1101	Math Fundamentals	3	0	3
EDU	105	Child Care Credential II	3	0	3
EDU	216	Communication Activities in Early Childhood	5	3	6
COE	251	Practicum	0	10	1
EDU	241	Seminar II	1	0	1
			15	13	17
<b>THIRD QUARTER</b>					
PED	242	Physical Activities for Children	2	3	3
EDU	122	Child Health, Safety and Nutrition	4	0	4
EDU	125	Creative Activities in Early Childhood	5	3	6
EDU	217	Exploration Activities in Early Childhood	5	3	6
EDU	242	Seminar III	1	0	1
COE	252	Internship	0	10	1
			17	19	21
<b>FOURTH QUARTER</b>					
ENG	151	Freshman Composition I or Communication Skills	3	0	3
ENG	1101	Communication Skills			
EDU	213	Children's Literature	5	0	5
EDU	225	Working with Children with Special Needs	5	3	6
			13	3	14
		<b>TOTAL CREDIT HOURS</b>			<b>70</b>



## 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 1500 hours of supervised instruction and practice.

All students desiring to graduate from the cosmetology program must successfully complete the program of studies attaining 1500 hours of instruction for advanced diploma and 1200 hours of instruction for diploma in addition to the College's Graduation Requirements. Students may enter this program any quarter.

Students registering for Cosmetology are required to take the following courses listed in the curriculum before graduation. Six hours of general courses, Psychology, Art, and English; six hours of related courses, Small Business Management and Trichology and Hair Chemistry; and 67 credit hours of major courses for day, afternoon, and evening students for advanced diploma and 59 credit hours of major courses, 6 general, and 6 related courses are required for a diploma. Isothermal Cosmetology is an approved Pivot Point member school, 1985, and a Redken SES school, (Scientific Educational System) 1986. Isothermal adopted the Pivot Point Scientific Approach to Hair Design and Redken SES Systems to update and standardize the program and to give the students the best education possible. Isothermal is the second community college and one of 250 private colleges in the nation offering the Pivot Point Educational System.

**COSMETOLOGY CURRICULUM (V-009)**  
**(Day Program for Diploma and Advanced Diploma)**

		Course Title	Theory	Lab	Clinical	Quarter Credit Hours
<b>FIRST QUARTER</b>						
COS	1001	Introduction to Cosmetology	5	0	0	5
COS	1011	Mannequin Practice	2	0	21	9
PSY	1100	Human Relations	3	0	0	3
			10	0	21	17
<b>SECOND QUARTER</b>						
COS	1002	Cosmetology Theory I	5	0	0	5
COS	1022	Cosmetology Skills I	2	0	21	9
ENG	1101	Communication Skills	3	0	0	3
			10	0	21	17
<b>THIRD QUARTER</b>						
COS	1003	Cosmetology Theory II	5	0	0	5
COS	1033	Cosmetology Skills II	2	0	21	9
MAT	1101	Math Fundamentals	3	0	0	3
			10	0	21	17
<b>FOURTH QUARTER</b>						
COS	1004	Cosmetology Theory III	5	0	0	5
COS	1044	Cosmetology Skills III	2	0	21	9
BUS	147	Small Business Management	3	0	0	3
			10	0	21	17
TOTAL			40	0	84	68
TOTAL CREDIT HOURS						68
TOTAL COSMETOLOGY CONTACT HOURS				1364		
<b>FIFTH QUARTER (Optional)</b>						
COS	1055	Advanced Cosmetology Skills	3	0	22	10
ART	1100	Art Awareness	2	0	0	2
			5	0	22	12
ADVANCED DIPLOMA TOTAL			45	0	106	80
TOTAL CREDIT HOURS			80			
TOTAL COSMETOLOGY CONTACT HOURS				1507		
GRAND TOTAL				1650 CONTACT HOURS		

## EVENING COSMETOLOGY

		Course Title	Theory	Lab	Clinical	Quarter Credit Hours
<b>FIRST QUARTER</b>						
COS	1101	Cosmetology Theory I	4	0	0	4
COS	1111	Cosmetology Skills I	1	0	18	7
PSY	1100	Human Relations	3	0	0	3
			8	0	18	14
<b>SECOND QUARTER</b>						
COS	1102	Cosmetology Theory II	4	0	0	4
COS	1112	Cosmetology Skills II	1	0	18	7
ENG	1101	Communication Skills	3	0	0	3
			8	0	18	14
<b>THIRD QUARTER</b>						
COS	1103	Cosmetology Theory III	4	0	0	4
COS	1113	Cosmetology Skills III	1	0	18	7
MAT	1101	Math Fundamentals	3	0	0	3
			8	0	18	14
<b>FOURTH QUARTER</b>						
COS	1104	Cosmetology Theory IV	4	0	0	4
COS	1114	Cosmetology Skills IV	1	0	18	7
BUS	147	Small Business Management	3	0	0	3
			8	0	18	14
<b>FIFTH QUARTER</b>						
COS	1105	Cosmetology Theory V	4	0	0	4
COS	1115	Cosmetology Skills V	1	0	18	7
ART	1100	Art Awareness	2	0	0	2
			7	0	18	13
<b>REGULAR DIPLOMA</b>						
TOTAL CREDITS		69				
TOTAL COSMETOLOGY HOURS		1419				
<b>SIXTH QUARTER</b>						
COS	1106	Cosmetology Theory VI	4	0	0	4
COS	1116	Cosmetology Skills VI	1	0	18	7
			5	0	18	11
<b>ADVANCED DIPLOMA</b>						
TOTAL CREDITS		80				
TOTAL COSMETOLOGY HOURS		1518				
GRAND TOTAL		1672				

## ELECTRICAL INSTALLATION V-018

The Electrical Installation curriculum is designed to provide a training program in the basic knowledge, fundamentals and practices involved in the electrical trades. A large segment 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 layout and installation of electrical systems in residential, commercial or industrial settings.

## ELECTRICAL INSTALLATION V-018

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ELC	1101	Fundamentals of Electricity	4	12	8
ELN	1118	Basic Electronics	3	3	4
MAT	1101	Math Fundamentals	3	0	3
CAS	118	Computer Applications	2	3	3
			12	18	18
<b>SECOND QUARTER</b>					
ELC	1102	Residential Wiring	4	12	8
ELC	1119	National Electrical Codes-Residential	6	0	6
BPR	1111	Blueprint-Electrical	0	3	1
MAT	111	Technical Math	3	0	3
			13	15	18
<b>THIRD QUARTER</b>					
ELC	1103	AC-DC Machines	4	12	8
ELC	1120	Troubleshooting Methods	5	3	6
PHY	100	Principles of Technology	3	3	4
			12	18	18
<b>FOURTH QUARTER</b>					
ELC	1104	Controls of AC-DC Machines	4	12	8
ELC	1121	Industrial Wiring	3	3	4
ENG	1101	Communication Skills	3	0	3
PSY	1100	Human Relations	3	0	3
			13	15	18
TOTAL CREDIT HOURS					72

## ELECTRICAL INSTALLATION CERTIFICATE V-018

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
ELC	1101	Fundamentals of Electricity	4	12	8
<b>SECOND QUARTER</b>					
ELC	1103	AC-DC Machines	4	12	8
<b>THIRD QUARTER</b>					
ELC	1102	Residential Wiring	4	12	8
<b>FOURTH QUARTER</b>					
ELC	1104	Controls of AC-DC Machines	4	12	8

## MACHINIST V-032

The Machinist curriculum gives individuals the opportunity to acquire basic skills and related technical information necessary to gain employment in the metalworking industries. The machinist is a skilled metalworker who shapes metal by using machine tools and hand tools. Machinists must be able to set up and operate the machine tools found in a modern shop. Computer Numerical Control (CNC) may be integrated into various phases of the curriculum or as specialized courses.

The machinist is able to select the proper tools and materials required for each job and to plan the cutting and finishing operations in their proper order so that the work can be finished according to blueprints or written specifications. The machinist makes computations relating to dimensions of work, tooling, feeds and speeds of machining. Precision measuring instruments are used to measure the accuracy of work. The machinist also must know the characteristics of metals so that annealing and hardening of tools and metal parts can be accomplished in the process of turning a block of metal into an intricate precise part.

## MACHINIST V-032

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
MEC	1101	Machine Shop Theory and Practice I	4	12	8
MAT	1101	Math Fundamentals	3	0	3
BPR	1101	Blueprint Reading	0	3	1
ISC	118	Industrial Safety	3	0	3
			10	15	15
<b>SECOND QUARTER</b>					
MEC	1102	Machine Shop Theory and Practice II	4	12	8
BPR	1105	Blueprint Reading-Mechanical	0	3	1
MAT	111	Technical Mathematics	3	0	3
MEC	118	Introduction to Metals	3	3	3
			10	18	16

**THIRD QUARTER**

MEC	1103	Machine Shop Theory and Practice III	4	12	8
MAT	1123	Machinist Mathematics	3	0	3
MEC	119	Applied Metallurgy	3	3	4
BPR	1106	Advanced Mechanical Blueprint Reading/Sketching	1	3	2
PHY	100	Principles of Technology	3	3	4
			14	21	21

**FOURTH QUARTER**

MEC	1104	Machine Shop Theory and Practice IV	4	12	8
ENG	1101	Communication Skills	3	0	3
WLD	1135	Basic Gas Welding and Cutting	2	3	3
PSY	1100	Human Relations	3	0	3
			12	15	17
		TOTAL CREDIT HOURS			69

**MACHINIST CERTIFICATE V-032**

		Course Title	Class Hours	Lab Hours	Credit Hours
<b>FIRST QUARTER</b>					
MEC	1101	Machine Shop Theory and Practice I	4	12	8
<b>SECOND QUARTER</b>					
MEC	1102	Machine Shop Theory and Practice II	4	12	8
<b>THIRD QUARTER</b>					
MEC	1103	Machine Shop Theory and Practice III	4	12	8
<b>FOURTH QUARTER</b>					
MEC	1104	Machine Shop Theory and Practice IV	4	12	8





## PRACTICAL NURSING V-038

The Practical Nursing curriculum graduates are prepared to take the National Council Licensure Examination required to practice as a licensed practical nurse. The Practical Nursing curriculum is designed to develop competencies in practicing the following five components of practice as defined by the North Carolina Nursing Practice Act, 1981: (1) participating in assessing the client's physical and mental health including the client's reaction to illnesses and treatment regimens; (2) recording and reporting the results of the nursing assessment; (3) participating in implementing the health care plan developed by the registered nurse and/or prescribed by any person authorized by State law to prescribe such a plan, by performing tasks delegated by and performed under the supervision or under orders or directions of a registered nurse, physician licensed to practice medicine, dentist, or other person authorized by State law to provide such supervision; (4) reinforcing the teaching and counseling of a registered nurse, physician licensed to practice medicine in North Carolina, or dentist; and (5) reporting and recording the nursing care rendered and the client's response to that care.

Licensed practical nurses may be employed in hospitals, nursing homes, clinics, doctors' offices, industry, and public health agencies.

Individuals desiring a career in practical nursing should be encouraged to take math and science courses in high school.

## PRACTICAL NURSING V-038

			Hours Per Week			Quarter
			Class	Lab	Clinical	Hours
						Credit
<b>FIRST QUARTER</b>						
BIO	270	Anatomy/Physiology I	3	3	0	4
NUR	1101	Nursing Fundamentals	6	4	3	9
NUR	1105	Pharmacology I	3	0	0	3
NUR	1109	Nutrition	3	0	0	3
ENG	151	Freshman Composition I	3	0	0	3
			18	7	3	22
<b>SECOND QUARTER</b>						
BIO	271	Anatomy/Physiology II	3	3	0	4
NUR	1102	Med-Surg I	9	0	12	13
NUR	1107	Pharmacology II	1	0	0	1
PSY	259	General Psychology	3	0	0	3
			16	3	12	21

**THIRD QUARTER**

BIO	272	Anatomy/Physiology III	3	3	0	4
PSY	261	Developmental Psychology	3	0	0	3
NUR	1104	Med-Surg II	8	0	<u>18</u>	<u>14</u>
			14	3	18	21

**FOURTH QUARTER**

NUR	1103	Maternity Nursing	5	0	9	8
NUR	1108	Pediatrics	5	0	9	8
			10	0	18	16
		<b>TOTAL CREDIT HOURS</b>				<b>80</b>



## WELDING V-050

The Welding curriculum gives 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 metals.

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



## WELDING V-050

	<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
<b>FIRST QUARTER</b>				
WLD 1101	Welding I	4	12	8
WLD 1118	Welding Problems I	2	6	4
BPR 1101	Blueprint Reading	0	3	1
MAT 1101	Math Fundamentals	3	0	3
		9	21	16
<b>SECOND QUARTER</b>				
WLD 1102	Welding II	4	12	8
WLD 1119	Welding Problems II	2	6	4
MEC 1140	Metallurgy for Welders	3	0	3
MAT 1102	Measurements	3	0	3
		12	18	18
<b>THIRD QUARTER</b>				
WLD 1103	Welding III	4	12	8
WLD 1120	Welding Problems III	2	6	4
BPR 1103	Blueprint Reading and Pattern Sketching	1	3	2
PHY 100	Principles of Technology	3	3	4
		10	24	18
<b>FOURTH QUARTER</b>				
WLD 1104	Welding IV	4	12	8
MEC 1112	Machine Shop Processes	1	3	2
ENG 1101	Communication Skills	3	0	3
PSY 1100	Human Relations	3	0	3
		11	15	16
	<b>TOTAL CREDIT HOURS</b>			68

## WELDING CERTIFICATE V-050

	<b>Course Title</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Credit Hours</b>
<b>FIRST QUARTER</b>				
WLD 1101	Welding I	4	12	8
<b>SECOND QUARTER</b>				
WLD 1102	Welding II	4	12	8
<b>THIRD QUARTER</b>				
WLD 1103	Welding III	4	12	8
<b>FOURTH QUARTER</b>				
WLD 1104	Welding IV	4	12	8

## ONE PLUS ONE PROGRAMS

### Physical Therapy Assistant and Dental Hygiene

Through an agreement with Greenville Technical College, Isothermal students can enter these vital health care programs. These programs are arranged as two separate components called One Plus One (1+1). The first component is taken at Isothermal and the second at GreenvilleTech. Please contact the College Transfer Dean for further information.

## INDIVIDUALIZED INSTRUCTION

The Individualized Instruction Center provides the opportunity to take college credit courses through the use of individualized and/or audio-visual-tutorial materials. These courses cover the same material as the traditional classroom courses, and they carry the same number of credit hours. This instructional method features self-paced learning materials and personalized instruction.

Registration procedures for individualized instruction courses are the same as for any other course. All courses in the Center may be taken for college credit or audit. Senior Citizens may take courses for credit or audit tuition free.

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

### COLLEGE TRANSFER OFFERINGS

*HIS	151	World Civilization
*HIS	152	World Civilization
*HIS	153	World Civilization
*HIS	260	History of United States
*HIS	261	History of United States
*HIS	262	History of United States
*POL	261	Introduction to American Politics
*PSY	260	General Psychology
RED	260	Speed Reading
*SOC	160	Introduction to Sociology

\*These courses are also available in the traditional classroom.

## COOPERATIVE EDUCATION PROGRAM

Cooperative Education is an alternative college program in which students are employed for specific periods of on- or off-campus work. 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.

There is a one credit hour Cooperative Education course entitled "Employment Seeking Skills" that is required of all students desiring to participate in the Cooperative Education program. A student may participate in the Co-op Program and earn credit toward degree requirements depending on his/her major.

In order to be eligible for the Co-Op program, the student should:

1. Be enrolled in a curriculum program, 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.
4. Be employable. 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.

### STUDENT SUPPORT SERVICES

Student Support Services is a college level educational support program designed to help students complete their chosen curriculum by increasing options for academic success for all students.

Each student's strengths and weaknesses are diagnosed in the areas of English, reading, and mathematics. Students participate in stimulating self-paced, teacher-assisted instruction, as well as lecture and discussion. Computer-assisted instruction is also available. 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.

Both day and evening classes are available to full- and part-time students.

#### A. Academic Support Courses:

ENG	090	Enrichment English
ORI	164	Textbook Reading and Study Skills
MAT	090	Basic Math
MAT	095	Basic Algebra
RED	085	Basic Reading
RED	090	Reading Proficiency



- B. Other Support Services Available:  
Supplemental Instruction  
Computer Assisted Learning  
Personal, Career, and Financial Aid Counseling

## 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 a 3-letter prefix (example—BUS for Business; ANT for Anthropology).
2. The courses are numbered as follows (example—BUS 201).
  - A. College Transfer and Technical Courses are 3 digit
  - B. Vocational Courses are 4 digit
3. Any course number less than 100 will not give credit hours for graduation.
4. The course title follows the number (example—BUS 201 Industrial Psychology).
5. The number of contact and credit hours follow the title (example—BUS 201 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 last number represents the number of credit hours assigned to the course.
6. Indicated at the end of the course descriptions 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).

For Example:

**BUS 201 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

### ACCOUNTING

**ACC 157 Federal Income Tax for Small Business** 3-0-3  
This course is an introduction to Federal Income Tax for small business. Included will be a step-by-step process for preparing income tax returns with an emphasis on tax form 1040 and all supplemental schedules as they apply to the small business owner.

**ACC 162 Bookkeeping for Small Business** 3-0-3  
Emphasis is placed upon the art of recordkeeping in the business world. The student will learn the proper techniques and application of bookkeeping in the business world.

- ACC 210 Principles of Accounting I** 3-2-4  
A study of basic accounting principles and procedures related to proprietorships where students will complete the accounting cycle for both service and merchandising enterprises. (F,W,Sp,Su)
- ACC 211 Principles of Accounting II** 3-2-4  
A continuation of basic accounting principles and procedures including the study of notes, uncollectible accounts, inventories, depreciation, and systems and control. Prerequisite: ACC 210. (F,W,Sp,Su)
- ACC 212 Principles of Accounting III** 3-2-4  
A continuation of basic accounting principles and procedures including partnerships, corporations, and manufacturing concerns. Prerequisites: ACC 211. (F,W,Sp,Su)
- ACC 217 Taxes I** 3-2-4  
Concepts and methods of determining federal tax liability of individuals. Topics include ordinary income, capital gains and losses, and net operating loss. The student will also be introduced to estate, gift and partnership taxation. (W)
- ACC 218 Taxes II** 3-2-4  
In this study of federal laws and regulations, students will demonstrate satisfactory competency in preparing business returns and fiduciary returns. Topics include: income tax withholding; reporting business or professional income for individuals, partnerships and corporations; researching and solving tax problems; applying federal and state laws for gifts and estates. Prerequisite: ACC 217.
- ACC 242 Computerized Accounting** 3-2-4  
This course is designed to provide the student with the operational skills needed to implement and use accounting software packages to provide accounts receivable, accounts payable, payroll, and general ledger services in a business. Prerequisites: CAS 160 and ACC 211. (ACC 211 may be taken simultaneously with this course). (Sp)
- ACC 244 Intermediate Accounting I** 3-0-3  
A comprehensive study of accounting principles introduced in earlier courses with special emphasis placed on the preparation of financial statements, cash and temporary investments, receivables and inventories. Prerequisite: ACC 212.
- ACC 245 Intermediate Accounting II** 3-0-3  
A comprehensive study of accounting principles introduced in earlier courses with special emphasis placed on liabilities, owners equity accounts, cash flow, and financial statement analysis. Prerequisite: ACC 244.
- ACC 246 Auditing** 3-0-3  
An introduction to auditing theory and practice covering audits as conducted by independent public accountants. Included are auditing standards, procedures, professional ethics, and review and evaluation. Prerequisite: ACC 212.
- ACC 248 Managerial Accounting** 3-0-3  
This course is designed as a survey for both nonfinancial and financial manager. This fast-paced course will give participants a quick understanding of the most important tools and techniques of general accounting, statement preparation, statement analysis and an introduction to cost. Students will learn how balance sheets, income statements and statement of owners equity help in reaching a company's objectives and how these and other accounting and financial functions relate to their department.
- ACC 250 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: ACC 212.

- ACC 253 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.

## **ANTHROPOLOGY**

- ANT 160 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.

- ANT 261 General Anthropology** 5-0-5  
A presentation of comprehensive material dealing with the major fields and basic principles in the comparative study of mankind. Course emphasis is upon humankind's place in nature, critical examination of fossil evidence concerning aspects of human cultural origins. The evolution of culture is studied with an emphasis upon cultural innovations, language, customs, technology, religion, societal structure and anthro-archaeological techniques for the study of past cultures for comparative purposes. Contemporary industrial and non-industrial societies are examined as well as various pre-literate peoples so that the growth of culture can be viewed from many diverse levels.

- ANT 262 Cultural Anthropology** 5-0-5  
This course is an attempt to describe and analyze primitive or folk peasant groups and understand the theoretical significance anthropologists attach to primitive society, and the analytical devices and ethnological concepts that they use in studying such people.

- ANT 263 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 excavation 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.

## **ART**

- ART 151 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.

- ART 152 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 arts as they relate to the drawing process.

- ART 160 Survey of Western Art** 5-0-5  
This course is a historic survey of painting, sculpture and architecture from approximately 10,000 B.C. to the twentieth century. It is designed to give the student an appreciation and understanding of how visual arts reflect civilization. Pre-requisite: ENG 090 & RED 090 or satisfactory placement scores.

- ART 251 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.

- ART 252 Introduction to Sculpture** 1-4-3  
Exploration of three-dimensional form through the application of diverse sculptural media. Prerequisite: ART 251.
- ART 253 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 151 or ART 153.
- ART 260 Painting I** 1-4-3  
Introduction to the painting experience through exploration of various painting media.
- ART 261 Painting II** 1-4-3  
Development of original work in various painting media through an individual problem-solving approach. Prerequisites: ART 151 and 153 or 260.
- ART 262 Painting III** 1-4-3  
Further development with the painting process. Emphasis on individual exploration, technical understanding, and compositional resolutions. Prerequisite: ART 261.
- ART 264 Printmaking** 1-4-3  
Introduction to the printmaking process through exploration of various printmaking techniques. Prerequisite: ART 151 or ART 153.
- ART 265 Constructive Design: Clay** 1-4-3  
Exploration of clay as a sculptural medium. Prerequisite: ART 251.
- ART 270 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.

- ART 1100 Art Awareness** 2-0-2  
Designed for cosmetology students, this course emphasizes art fundamentals including line, color, and form.

## **AUTOMOTIVE**

- AUT 1101 Automotive Engine, Electrical Fuel Systems** 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.
- AUT 1102 Automotive Brakes, Chassis and Suspension** 2-15-7  
A complete study of various braking systems employed on automobiles and lightweight 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.
- AUT 1103 Automotive Internal Combustion Engines** 2-15-7  
A development of a thorough knowledge and abilities 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.

- AUT 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.
- AUT 1106 Automotive Wiring** 2-6-4  
After completing this course, the student will be able to diagnose and repair most collision related electrical damage. Also covered will be how to prevent damage to computer controls and how to safely disarm air bags during repair, also diagnostic checks of air bags will be covered.
- AUT 1111 Automotive Schematics and Diagrams** 2-3-3  
An 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.
- AUT 1112 Automotive Schematics and Diagrams: Power Mechanics (Electrical and Fuel Systems)** 2-3-3  
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.
- AUT 1113 Automotive 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.
- AUT 1118 Automotive Problems** 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.
- AUT 1120 Auto Body Repair I** 4-0-4  
The theory of Auto Body Repair prepares the student for "hands-on" experience with sheet metal by explaining common hand and power tools, types of sheet metal damages, techniques for repair and finishing of minor damage repair. Also covered will be compressed air supply equipment and basic shop safety practices.
- AUT 1121 Auto Body Repair II** 4-0-4  
After completion of this course the student will be able to identify the degree of damage to body structural and non-structural body assemblies using the proper measuring equipment and techniques. Also covered will be the use of unibody dimensions and specifications charts as they apply to the Blackhawk Bench System and the use of the universal measuring system.
- AUT 1122 Auto Body Repair III** 4-0-4  
After completion of this course the student will be able to identify the methods and procedures which apply to overall refinishing of automotive bodies. Other topics covered will be panel spotting and complete panel painting. Removal of glass, trim, and moldings will also be discussed.
- AUT 1123 Auto Body Repair IV** 4-0-4  
After completion of this course the student will be able to identify and list on an estimate form the degree of damage and cost to repair the vehicle. Using the Mitchell Collision Manual will be studied as well as dealing with customers and insurance companies.



- AUT 1124 Painting Materials and Practice** 5-3-6  
A thorough study of the safety in handling and usage of the latest clear coat and urethane automotive paints. Proper application and preparation will be covered in the lab as well as gun adjustment, air pressure and spray techniques. Students will be given ample time to practice these skills.
- AUT 1125 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.
- AUT 1126 Automobile Servicing I** 1-3-2  
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.
- AUT 1130 Auto Body Repair Shop I** 0-15-5  
The purpose of this course is to provide the student with working knowledge of hand and power tools and the metals with which they will work. Roughing-out metal, shrinking metal, using filler materials and finishing metal will be taught. Efficiency comparable to requirements of the auto body trade will be stressed.
- AUT 1131 Auto Body Repair Shop II** 0-15-5  
After completion of this course the student will be able to correctly determine the extent of damage using the proper measuring equipment and techniques. Removing damaged parts and straightening of unibody assemblies will be done. Correct methods of usage of the Blackhawk Bench System will be covered as well as set up of measuring equipment.
- AUT 1132 Auto Body Repair Shop III** 0-15-5  
Principles of cleaning, masking, spraying, and compounding will be demonstrated by the instructor and practiced by the students during actual refinish work being performed by students. Emphasis will be given to overall as well as spot and panel repair painting. Proper maintenance of shop equipment and spray equipment will be taught with emphasis on industry standards and proper safety and health precautions. Removal of trim, moldings and auto glass will be performed as applicable. Students will be given ample time to develop their skills.
- AUT 1133 Auto Body Repair Shop IV** 0-15-5  
During this session all students will be given time to further practice skills learned throughout the previous year. Projects will be provided by both the students and the instructor with emphasis being given to quality of work performed and length of time to complete. All work being done by the student will first be documented by a written estimate covering all aspects of repair and acceptable time limits to perform the repair. Students will be evaluated by the instructor on quality of repair on a week by week basis.
- AUT 1201 Auto Body Repair I** 2-15-7  
The purpose of this course is to provide the student with working knowledge of hand and power tools and the metals with which they will work. Roughing-out metal, shrinking metal, using filler materials and finishing metal will be taught. Efficiency comparable to requirements of the auto body trade will be stressed.
- AUT 1202 Auto Body Repair II** 2-15-7  
After completion of this course the student will be able to correctly determine the extent of damage using the proper measuring equipment and techniques. Removing damaged parts and straightening of unibody assemblies will be done. Correct methods of usage of the Blackhawk Bench System will be covered as well as set up of measuring equipment.

**AUT 1203 Auto Body Repair III** 2-15-7  
Principles of cleaning, masking, spraying, and compounding will be demonstrated by the instructor and practiced by the students during actual refinish work being performed by students. Emphasis will be given to overall as well as spot and panel repair painting. Proper maintenance of shop equipment and spray equipment will be taught with emphasis on industry standards and proper safety and health precautions. Removal of trim, moldings and auto glass will be performed as applicable. Students will be given ample time to develop their skills.

**AUT 1204 Auto Body Repair IV** 2-15-7  
During this session all students will be given time to further practice skills learned throughout the previous year. Projects will be provided by both the students and the instructor with emphasis being given to quality of work performed and length of time to complete. All work being done by the student will first be documented by a written estimate covering all aspects of repair and acceptable time limits to perform the repair. Students will be evaluated by the instructor on quality of repair on a week by week basis.

## **BIOLOGY**

**BIO 151 Principles of Biology I** 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. Pre-requisite: RED 090 or satisfactory placement test scores.

**BIO 152 Principles of Biology II** 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. Pre-requisite: RED 090 or satisfactory placement test scores.

**BIO 153 Principles of Biology III** 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. This course also includes an oral communication component via debates. Three laboratory hours per week. Pre-requisite: RED 090 or satisfactory placement test scores.

**BIO 165 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 270 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. Pre-requisite: RED 090 or satisfactory placement test scores. BIO 151 and 152 strongly recommended. (F)

**BIO 271 Anatomy and Physiology II** 3-3-4  
This quarter deals with the respiratory, digestive and urogenital systems. Emphasis is placed on metabolism, excretion, fluid and electrolyte balance. Pre-requisite: RED 090 or satisfactory placement test scores. BIO 151 and 152 strongly recommended. (W)

**BIO 272 Anatomy and Physiology III** 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 are also covered. Emphasis is given to the nervous system's organization and the cardiovascular systems. Pre-requisite: RED 090 or satisfactory placement test scores. BIO 151 and 152 strongly recommended. (SP)

**BIO 280, 281 Microbiology** 2-3-3  
A general introduction to 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: BIO 151 or 270; Prerequisite for BIO 281 is BIO 280. (Su)

## **BLUEPRINT READING**

**BPR 1101 Blueprint Reading** 0-3-1  
Interpreting and reading shop drawings and sketches. What to expect in a drawing; lines, views, dimensions, tolerances, symbols, and notes.

**BPR 1103 Blueprint Reading and Pattern Sketching** 1-3-2  
A basic study of blueprint reading, various lines, extension, dimension, object center, projection lines and reference lines. Studies are made on welding symbols fillet weld, flat, convex, concave, field weld melt through, non-destructive examination symbols, lay out and project work.

**BPR 1105 Blueprint Reading-Mechanical** 0-3-1  
Further practice in the identification of lines, views, notes, and dimensioning procedures; the reading of industrial blueprints; the introduction to drafting room procedures; and sketching as a means of passing on ideas, information, and processes. Prerequisite: BPR 1101

**BPR 1106 Advanced Mechanical Blueprint Reading/Sketching** 1-3-2  
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. Prerequisite: Permission from the instructor

**BPR 1111 Blueprint-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.

## **BUSINESS**

**BUS 100 Introduction to Business** 3-0-3  
An introductory course in the organization, functions, operations, controls, and problems of business enterprises. (F,W,Su)

**BUS 101 Professional Development** 3-0-3  
This course reflects the concern for the development of successful work habits and personality traits in all workers. Learning about oneself, dealing with attitudes, coping and communicating at work. (Sp)

**BUS 112 Business Finance** 3-0-3  
A study of the monetary and credit systems and policies in relation to the financing of sole proprietorships, corporations, and governments and a detailed study of short-term, long-term, and consumer financing. (W)

**BUS 130 Materials Requirements Planning** 3-0-3  
This course covers the fundamental concepts and principles in time-phased material requirements planning. The key functions of inventory management.

**BUS 131 Inventory Management** 3-0-3  
Major course objectives will cover the proper balance to maintain in order to achieve the desired level of customer service, investment in inventories, and proper timing in the management and purchasing requirements.

- BUS 133 Capacity Management** 3-0-3  
The course will cover the functions of manufacturing schedules. The process of determining the number of employees, machines, and physical resources to meet the production objectives.
- BUS 134 Master Planning** 3-0-3  
This course is divided into two major sections: forecasting and master production scheduling. The techniques and terminology used in a principles of forecasting will be presented. Master production scheduling activities of demand management, production planning, final assembly scheduling, and master production scheduling will be covered.
- BUS 135 Production Activity Control** 3-0-3  
This course covers the most important principles and techniques of a shop floor control. The student will have a working knowledge of the approaches used by managers to plan, schedule, control, and evaluate the effectiveness of shop production operating. The course covers process plants, volume production lines, and industries that operate a shop floor control environment.
- BUS 147 Small Business Management (Voc-Tech)** 3-0-3  
Upon completion of this course students should be able to understand the techniques and principles of planning, organizing, directing, controlling, and operating a small business. The three basic types of small businesses - retail stores, manufacturing, and service organizations will be discussed also. Students will also be made aware of opportunities and risks involving a small business.
- BUS 150 Introduction to Small Business** 3-0-3  
This course is designed for persons already in a small business, for persons committed to starting one, or for people who operate a business from home. The course includes skills for home-based business, marketing, recordkeeping for tax purposes, licensing, permit requirements, and financial planning.
- BUS 151 Small Business Management Skills** 2-0-2  
This course is designed to develop managerial skills in problem identification, problem solving, decision making, and negotiating. Participants will learn how to plan, replan, organize, and control their businesses through the use of special techniques, as well as how to cope effectively with time and stress. The course emphasizes the importance of effective personnel management through the use of goal setting, rewards, and consistency.
- BUS 152 Managing a Services Business** 2-0-2  
This course is designed for people who operate a service business or who want to explore the possibility of doing so. The participants will be able to write a business plan; design a recordkeeping system for tax purposes; determine insurance needs; develop a financial plan, marketing strategy, and advertising plan; and project start-up costs.
- BUS 153 Small Business Financial Management** 2-0-2  
This course is designed for people already in a small business or for those committed to starting one. The course includes financial management and determining ways to maximize profits through controlling costs and identifying positive cash flow.
- BUS 154 Small Business Advertising** 2-0-2  
This course is designed for owners or managers of small businesses who want to develop an advertising program. The participants will study advertising and its goals, develop advertising budgets, plan advertising schedules, evaluate appropriate media, and design advertising messages.
- BUS 155 Microcomputer Use for Small Business** 1-2-2  
This course is designed for persons committed to starting small business or for those already in one. The participants will determine their business needs of a microcomputer, select software and hardware.

- BUS 156 Small Business Inventory Management** 2-0-2  
This course is designed for people already in a small business or for those committed to starting one. The course covers the necessity of inventory control, identifying key elements of inventory management, establishing guidelines for suitable inventory levels, and identifying inventory losses through theft and ineffective handling.
- BUS 158 Purchasing & Cost Control for Small Business** 2-0-2  
This course is created for persons committed to starting a small business or for those already in one. The course covers purchasing operations for management, how to negotiate effectively with suppliers, and how to implement effective cost control measures.
- BUS 161 Business Law for Small Business** 2-0-2  
This course is designed for persons committed to starting a small business or those already in one. The course covers the basic concerns of how to operate legally both prior to and after startup, safeguarding the business through wise choices of legal, accounting, and insurance expertise, and understanding how federal, state, and local laws and regulations directly affect small businesses.
- BUS 170 Business and Social Environment** 3-0-3  
A study of the economic, moral, and political environment in which business and industry operate today. The course examines relationships among business and its social influences, its moral and political institutions, and how business responds to the goals of society. (Su)
- BUS 201 Industrial Psychology** 3-0-3  
A study of principles of psychology that will be of assistance in the understanding of interpersonal 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. (W)
- BUS 214 Principles of Management** 3-0-3  
This course is designed to introduce students to the field of management. Emphasis will be placed on the evolution of the management concept and the functions of management: planning, organizing, directing and controlling. (Sp)
- BUS 215 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 the office.
- BUS 216 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, the role of the supervisor and methods of supervision. (Sp)
- BUS 217 Advanced Supervision** 3-0-3  
This course is designed to improve supervisory manager effectiveness in several areas of responsibility which are of critical importance to the organization and often the most difficult to manage. (Sp)
- BUS 218 Wage and Salary Administration** 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. (Su)
- BUS 223 Credit Procedures and Problems** 3-0-3  
Principles and practices in the extension of credit, collection procedures, and laws pertaining to credit extension and collection.



**BUS 224 Human Resource Management** 3-0-3  
A study of basic personnel policies, practices, objectives, functions and the organization of personnel programs. Emphasis is placed on recruiting, selection, placement, training and development, and employee evaluation. (F)

**BUS 225 Business Law** 3-0-3  
A general course designed to acquaint the student with law, the court system, and certain fundamentals of principles of business law. The principal emphasis is contract law. (F)

**BUS 226 Business Law** 3-0-3  
Legal principles pertaining to bailments, sales contracts, commercial paper, responsibilities of hotel keepers, regulation of common carriers and insurance. (W)

**BUS 227 Business Law** 3-0-3  
A study of the law of agency, the law of employment, labor relations, partnerships and corporations, property rights, and wills and estates. (Sp)

**BUS 239 Business Mathematics** 3-2-4  
A course designed to provide students with a vocational advantage of math competency by application of number and calculator skills to business problems. Topics will include percentage, trade and cash discounts, markup and markdown, and the use of metric terms in a practical context. Prerequisite: MAT 107 or satisfactory placement test score. (F,W,Sp,Su)

**BUS 257 Applied Business Communications I** 3-0-3  
This course is designed to integrate traditional business communication principles with current communication technology. Emphasis is on written and oral communication, listening skills and perception. (F)

**BUS 258 Applied Business Communications II** 3 0 3  
Further study of traditional business communication principles integrated with current communication technology. Emphasis on grammar, oral communication skills, letter, memo and report writing. Prerequisite: BUS 257 (W)

**BUS 260 Leadership Development** 3-0-3  
This course deals with winning commitment and cooperation. A leader can learn how to focus the interests and expectations of his followers effectively as he uses a successful leadership style. The course involves looking at leadership characteristics and developing one's own style. (Sp)

**BUS 1100 Small Business Operations** 2-0-2  
Upon completion of this course students should be able to understand the techniques and principles of planning, organizing, directing, controlling, and operating a small business. The three basic types of small businesses - retail stores, manufacturing, and service organizations will be discussed also. Students will also be made aware of opportunities and risks involving a small business.

**BUSINESS COMPUTER PROGRAMMING** ..... see CAS and CSC course descriptions.

#### **COMPUTER APPLICATIONS**

**CAS 101 Computer Applications and Concepts** 3-0-3  
This course is designed to introduce the student to the microcomputer and its operating system. Hands-on experience is provided using an integrated software package to introduce the student to word processing, electronic spreadsheets and databases. Prerequisite: OSC 101 or equivalent preferred.



- CAS 118 Computer Applications** 2-3-3  
 This course is designed to acquaint the Vocational/Technical student with some of the applications of the microcomputer, both in and out of the classroom. It introduces basic microcomputer architecture, general operating procedures, word processing, spreadsheets and database. "Hands-on" laboratory experiences are emphasized.
- CAS 160 Microcomputer Operating Systems** 2-2-3  
 The concepts and principles of disk operating systems such as MS/PC DOS will be explored. Practical applications will be explored by completing a series of assigned laboratory exercises using IBM microcomputers. (F,W,Sp)
- CAS 163 Word Perfect** 3-2-4  
 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: OSC 102 or permission from instructor. (F,W,Sp,Su)
- CAS 171 Microsoft Word for Windows** 3-2-4  
 This course is designed to teach the student efficient use of Microsoft Word for Windows word processing software. Emphasis is placed on managing and editing documents, formatting and printing documents, using the button bar, and working with multiple windows. Prerequisite: OSC 101 or equivalent.
- CAS 172 Advanced Microsoft Word for Windows** 3-2-4  
 This course is designed to teach advanced commands and features of the Microsoft Word for Windows word processing software, preparing the student to perform complex operations. Emphasis is placed on special print features, techniques to arrange text in columns and tables, individualizing form letters, establishing consistent formatting throughout a document, creating and using macros, and adding graphics to a document. Prerequisite: CAS 171
- CAS 181 Introduction to Multimedia** 3-0-3  
 This course is designed to enable the student to develop professional-looking presentations quickly and easily. Topics include content development, preparation, and use of multimedia tools to present information effectively. Prerequisite: CAS 101 or equivalent.
- CAS 185 Presentation Graphics** 3-0-3  
 This course is designed to introduce the student to presentation graphics software. Topics include presentation design, presentation software overview, and hands-on development of presentations. Prerequisite: CAS 101 and CAS 214 or permission of the instructor.
- CAS 191 Introduction to Internet** 3-0-3  
 This course is designed to introduce the student to internet, including access options and tools for manipulation within internet. Hands-on experience will be provided. Prerequisite: CAS 101 or equivalent.
- CAS 200 Operating System/400** 4-3-5  
 This course is designed to demonstrate fundamentals of AS/400 computer operation. Special keys and navigating the system will be explored. Job management, system security, and object management concepts will be presented. Work with database files, computer objects, libraries, screen displays will be demonstrated through hands on operation. System utilities (SEU, DFU, SDA, QUERY) will be used in hands-on demonstration.
- CAS 204 Introduction to the AS/400** 3-0-3  
 This course is designed to introduce the student to the IBM Application System/400. Topics include features, available software and hardware, available education, and methods for incorporating these into the business environment.

- CAS 208 Desktop Publishing** 3-2-4  
This course will teach the student to electronically design, layout, edit, and produce a photo-ready document using the personal computer and word processing, graphic, and page-layout software. The student will use PFS: First Publisher and be introduced to Aldus PageMaker software. Prerequisite: CAS 160 or personal computer experience.
- CAS 212 PC Installation and Maintenance** 3-2-4  
This is an introductory course in the initial hardware setup and loading of software on an IBM PC, IBM PS/2, or Compatible microcomputer systems. Maintenance and upgrading of both hardware and software will be covered. Prerequisite: CAS 160.
- CAS 214 Microsoft Windows** 3-0-3  
Microsoft Windows is a software package that has the ability to run more than one application at a time and transfer information between applications. The superior way it uses the full power of a microcomputer, and its rich graphical interface provide a more intuitive and efficient work environment than ever before on a personal computer. This course teaches the student to effectively use Windows.
- CAS 218 AS/400 Data File Utility and Screen Design Aid** 3-0-3  
This course is designed to explore two AS/400 utilities. These are the Data File Utility (DFU) and the Screen Design Aid (SDA). The Data File Utility will be used to create typical data files, update them, add to them. General concepts of file design will be discussed as data files relate to actual applications. The Screen Design Aid will be used to design and create menus and entry displays. Hands-on projects will be completed to illustrate the concepts discussed.
- CAS 222 AS/400 Query** 3-0-3  
This course is designed to explore AS/400 Query. Query for selection, joining, and displaying / printing / database file creation. Changing a query, storing a query, and calling a query from a command line will also be explored.
- CAS 224 The Electronic Office** 3-2-4  
This course is designed to present electronic methods of conducting normal office activities. Topics include scheduling, calendaring, mail handling, sending and receiving messages, and an introduction to word processing, spreadsheets and presentations graphics. Practical hands-on experience will be provided. Prerequisites: CAS 101 or permission of the instructor.
- CAS 228 Database on the AS/400** 3-0-3  
This course is designed to enable the student to create, access, and maintain a database on the AS/400. Topics of discussion include physical and logical files, join files, coding and entry of DDS Specifications, and access through Query, DFU and applications programs.
- CAS 232 AS/400 PC Support** 3-0-3  
This course is designed to enable the student to install and use PC Support Utility on the AS/400 to provide terminal access using a PS/2 with 5250 emulation.
- CAS 240 Systems Analysis** 3-2-4  
A study of the concepts and steps involved in conducting a major systems project. A case study will be closely followed through all phases of a project with emphasis on the solutions to advanced data processing situations. Prerequisites: CSC 210, CSC 220 or CSC 230. (F)
- CAS 241 Lotus 1-2-3** 3-2-4  
This class will cover all basic and intermediate aspects of the IBM PC spreadsheet program including cell entries, formulas, formatting of cells, organization of a spreadsheet, Lotus functions, special function keys, saving and printing of spreadsheets and 1-2-3 commands. Also selected advanced topics will be covered such as keystroke macros. Prerequisite: CAS 160. (W,Sp)

- CAS 243 Advanced Lotus 1-2-3** 3-2-4  
 This course is designed to explore the more advanced features of Lotus 1-2-3 as they apply to business applications. The student should have taken CAS 160 and CAS 241 or should be familiar with the IBM or compatible PC's and be able to use Lotus 1-2-3.
- CAS 245 Microsoft Excel** 3-2-4  
 This course will cover all basic and intermediate features of the Excel spreadsheet program including cell entries, formulas, formatting of cells, organization of spreadsheet, Excel functions, saving, and printing of spreadsheets. Also, selected progressive topics will be covered such as graphics and database operations. Prerequisite: CAS 160 or equivalent.
- CAS 246 Advanced Microsoft Excel** 3-2-4  
 This course is designed to cover the more advanced features of Microsoft Excel as they apply to business applications. The student should have taken CAS 160 and CAS 245 or should be familiar with the IBM or compatible PC's and be able to use Microsoft Excel.
- CAS 248 Advanced WordPerfect** 3-2-4  
 This course is designed to teach the student advanced commands and features of word processing software that allows you to perform complex operations, develop and work with large documents easily, and save time. Emphasis is placed on special print features, macros, styles, tables, spreadsheets, and an introduction to desktop publishing and graphics. Prerequisite: CAS 163 or permission of the instructor.
- CAS 250 Computer Training and Support** 3-0-3  
 This course is designed to equip the student with the knowledge needed to plan and coordinate training for the computer. Topics include location of resources, methods of training, documentation, purchase of hardware, and development of procedure manuals.
- CAS 252 DBASE** 3-2-4  
 This course will present the concepts and applications of database design, maintenance, and processing. Students will utilize Database software of the IBM PC. Prerequisite: CAS 101 or CAS 160. (W)
- CAS 253 Advanced DBASE** 3-2-4  
 This course is designed to teach the student such database topics as dbase programming, an introduction to Structured Query Language (SQL), the applications generator, and other advanced topics. Prerequisites: CAS 252 or permission of the instructor.
- CAS 255 Data Communications** 3-2-4  
 This course is designed to familiarize the student with the concepts and terminology of data communications. Required reading and class discussions are supplemented by hands-on introduction to typical data communications equipment and video presentations. The fundamentals of local area networking will be explored from a communications viewpoint. Current concerns related to data communications will be introduced and discussed as appropriate. Prerequisite: CAS 160
- CAS 261 Networking Fundamentals** 3-0-3  
 This course is designed to introduce the student to a typical local area network (LAN). A series of hands-on exercises will be performed on the network to demonstrate the concepts of file serving, data sharing, program sharing and communicating from one workstation to another. Concepts, standards, hardware, and software required to participate in network operations will be discussed. Prerequisite: CAS 255 or permission of the instructor.
- CAS 262 Networking Administration** 3-0-3  
 This course is designed to learn the aspects of managing a typical local area network (LAN). A series of hands-on exercises will be performed to demonstrate installation of applications, configuring workstations, monitoring operations, protecting files, problem resolutions and directing output. Practical considerations of LAN choices to meet requirements, hardware specifications, installation and modifications will be discussed. Prerequisite: CAS 261

## CHEMISTRY

### **CHM 100 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 110 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, stoichiometric, reactions, solutions, chemical equilibrium, and basic organic chemistry. (Su)

### **CHM 151 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. Prerequisites: Currently taking MAT 151 or higher. (F)

### **CHM 152 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 151. (W)

### **CHM 153 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 152. (Sp)

### **CHM 250 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)

### **CHM 251 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 250. (Su)

## CRIMINAL JUSTICE

### **CJC 100 Basic Law Enforcement Training** 16-30-26

The North Carolina Criminal Justice Education and Training Standards Commission requires all law enforcement officers to complete a Commission-approved training course. CJC 100 satisfies that requirement and prepares the student for the state comprehensive examination administered by the Commission at the conclusion of the course. This course is limited to sworn law enforcement personnel.

### **CJC 101 Nature and History of Law** 5-0-5

The study of pre-political organizations of society; pre-legal means of social control; beginnings of potentially organized society; and beginnings and development of law as a means of social control in politically organized society.

### **CJC 102 Introduction to Criminal Justice System** 5-0-5

This course is designed to introduce the student to the criminal justice system including the history, development, and current application of criminal justice in modern society. National crime data and statistics, criminology, criminal law, and constitutional law will also be reviewed within an introductory context.



- CJC 103 The Law Enforcement Officer's Function in Criminal Justice** 5-0-5  
The study of officers function in criminal justice will provide the student with an adequate background in the daily functions and responsibilities of law enforcement officials.
- CJC 104 The Court's Function in Criminal Justice** 3-0-3  
This course will provide an introductory study of the modern court system in America. The structure and function of both federal and state courts will be explored, along with the scope and responsibilities of the judge, prosecutor, and defense attorney. The court process will also be studied, including the criminal trial.
- CJC 105 Corrections in Criminal Justice** 3-0-3  
This course will provide an in-depth study into the role that corrections plays in modern criminal justice system.
- CJC 106 Juvenile Justice** 5-0-5  
This course will provide students with a broad overview of the American juvenile justice system. Tracing the system from its earliest origins to the present, the weaknesses of the present system will be explored, along with suggestions as to how to best stem the rising tide of juvenile crime. Why juveniles commit crimes, crime data, and constitutional mandates upon juvenile justice will also be explored.
- CJC 107 Introduction to Criminology** 5-0-5  
This course will provide students an introductory study into why and how crime occurs. Relying on a sweeping array of crime data and statistics, various theories will be explored concerning the origin and cause of criminal behavior. Sociological, psychological, and biological theories will be discussed, along with an analysis of specific violent criminal behavior such as murder and rape.
- CJC 109 Victimology** 3-0-3  
Reflecting increasing attention on the victims of crime, this course will explore the plight of crime victims in modern day America. Largely ignored by the legal system in the past, students will study the historical treatment of victims. The devastating consequences of crime will also be revised, including the emotional and financial costs of crime, the needs and problems of special types of victims, recent trends in victimology, and the unique problems of balancing victim rights with criminal rights.
- CJC 201 Criminal Law I** 3-0-3  
This course will explore the development of modern criminal law from its primitive origins to the complex system of today. General principles of law will be studied providing a foundation for the study of specific criminal offenses and laws in CJC 202.
- CJC 202 Criminal Law II** 3-0-3  
This course will explore in detail the elements that make up a broad range of modern criminal law. A discussion of both felonies and misdemeanors will be included, as well as the historical origin of various laws, the need and purpose of such laws, and the esoteric application of such law within the criminal courts. This course will focus on both criminal statutory law, as well as case law and English common law and also North Carolina criminal law.
- CJC 203 Motor Vehicle Laws of North Carolina** 5-0-5  
This course will provide an in-depth study of the motor vehicle laws of North Carolina, as well as those laws similar in other states. The purpose for enforcing motor vehicle laws will also be discussed including both national and state motor vehicle accident data.
- CJC 204 Criminal Evidence** 3-0-3  
This course will provide an in-depth study into the role that criminal evidence plays in the modern criminal justice system. Laws of criminal evidence as it relates to the courtroom trial will provide students a thorough introduction into criminal evidence.

**CJC 205 Criminal Investigation** 5-0-5

This course will provide an introductory study into the fundamentals of criminal investigation. Included in the instructional format will be both lecture, as well as practical exercises involving crime scene management and criminal investigation methods and techniques. Extensive practice of criminal investigative procedures will be emphasized.

**CJC 206 Introduction to Criminalistics** 4-3-5

This course will provide an introductory look into the application of science and laboratory techniques in modern criminal investigations. Using both lecture and hands-on training, students will be exposed to scientific concepts as diverse as fingerprints, blood splatter analysis, DNA, and trace metal detection. More than old-fashioned logic, modern criminal investigations rely on the latest advances in the scientific and medical fields. This course will introduce the student to such concepts and methods.

**CJC 207 Law of Arrest, Search and Seizure** 3-0-3

This course will provide a broad overview of procedural law, the law that governs the actions of law enforcement agencies in conducting arrest, searches, and seizures. Relying on both constitutional and case law, students will also be exposed to North Carolina statutory law as it governs such government action.

**CJC 208 Use of Deadly Force** 3-0-3

This course will focus on the application and use of deadly force as it relates to those in the law enforcement profession. Covering a broad spectrum of issues, students will explore statutory and constitutional concerns, as well as departmental policies, community interest, the media, and the human element in the use of deadly force. Court cases will also be reviewed, including the consequences of unjustified use of deadly force.

**CJC 209 Law Enforcement Organization and Administration** 3-0-3

This course will emphasize the management responsibilities of modern small law enforcement agencies. Agency size, structure, and purpose will be explored, along with various problems that such agencies encounter. In addition, leadership traits and qualities will be explored including an emphasis on personal leadership development.

## COOPERATIVE EDUCATION

**COE 100 Employment Seeking Skills** 1-0-1

A course designed to help prepare the student for 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.

**COE 101-106 Co-Op Parallel Work Experience**

Through the Cooperative Education Program, the student works in a position related to his or her program of study and for an employer selected and/or approved by the College. The student attends classes and works on a parallel plan. Grades will be determined by the evaluations by employers, students, and the Co-op office.

Credit 1-2 Hours/Quarter

Contact 10-20 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 201-202 Co-Op Alternate Work Experience**

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. The student attends classes full-time one quarter then works full-time the next quarter and does not attend classes. Grades will be based primarily on evaluation 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 250 Practicum 0-10-1**

This supervised practicum experience gives the student an opportunity to apply age-appropriate principles of child development, relationships, and learning in a special needs environment. The seminar gives the student an opportunity to evaluate practical experiences and to discuss curriculum components.

### **COE 251 Practicum 0-10-1**

This supervised practicum experience gives the student an opportunity to apply age-appropriate principles of child development, relationships, and learning in a preschool environment. The seminar gives the student an opportunity to evaluate practical experiences and to discuss curriculum components.

### **COE 252 Internship 0-10-1**

This supervised internship gives the student an opportunity to apply age-appropriate principles of child development relationships and learning in a selected early childhood or elementary environment. The seminar gives the student an opportunity to evaluate practical experiences and to discuss curriculum components.

### **COE 254 Practicum 0-10-1**

This supervised practicum experience gives the student an opportunity to apply age-appropriate principles of child development, relationships, and learning in an elementary environment. The seminar gives the student an opportunity to evaluate practical experiences and to discuss curriculum components.

### **COE 255 Practicum 0-10-1**

This supervised practicum experience gives the student an opportunity to apply age-appropriate principles of child development, relationships, and learning in special needs environment. The seminar gives the student an opportunity to evaluate practical experiences and to discuss curriculum components.

### **COE 256 Practicum 0-20-2**

This supervised practicum gives the student an opportunity to apply age-appropriate principles of child development relationships and learning in a selected early childhood or elementary environment. The seminar gives the student an opportunity to evaluate practical experiences and to discuss curriculum components.

## **COSMETOLOGY BEGINNER'S 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 the department shall be devoted to the following: Scientific Study and Mannequin Practice. Manicuring practice in this department shall be done on students enrolled in the school during the first 300 hours.

### **COS 1001 Introduction to Cosmetology** **5-0-0-5**

This course introduces the beginning student to various aspects of cosmetology, ethics, human relations, and orientation. The course includes the study of the hair and skin; the effects of cosmetics and chemical upon the hair and skin; cleansing, conditioning, and cutting of the hair; the basic of hairstyling; cosmetology law and first aid; and sterilization and sanitizing of implements and equipment. This course provides the cosmetology student with an understanding of not only "why" certain techniques are performed but also which chemical actions and reactions may be expected from the cosmetic products employed. Retail selling principles as they apply to products and services.

### **COS 1011 Mannequin Practice** **2-0-21-9**

Mannequin practice allows the student to develop cosmetological skills that will be needed when providing services to the public in a full service salon. The practical work is devoted to draping, finger waving, pin curling, marcelling, hair styling, hair cutting, hair relaxing, permanent waving, roller placement, thermal pressing, curling, application of products. After demonstration by a faculty member, hair and scalp treatments, shampooing, facials with massage, make-up, air waving, hair color and manicures will be practiced on other students. A study of skin disorders, procedures for correcting disorders, skin analysis, corrective and maintenance facial treatments, color analysis, and professional make-up application will also be studied. Emphasis is placed on first aid skills and sanitary and safety precautions. Prerequisite: COS 1001

## **ADVANCED DEPARTMENT**

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

### **COS 1002 Cosmetology Theory I** **5-0-0-5**

This is a classroom study of advanced principles: chemical reformation (permanent waving, chemical relaxers); selling salon services and products; the basic principles of haircutting to achieve the various styles; how to style hair according to bone and body structure, facial features, lifestyle and customer preference; selection, hair composition and how its chemistry is affected by various products used in the salon; thermal pressing and styling and various scalp treatments. Prerequisite: COS 1001

### **COS 1022 Cosmetology Skills I** **2-0-21-9**

This is a classroom study of advanced principles: chemical reformation (permanent waving, chemical relaxers); chemicals incorporated in products, selling products and services; the basic principles of haircutting to achieve the various styles; how to style hair according to bone and body structure, facial features, lifestyle and customer preference; selection, care and styling of wigs and hairpieces; thermal pressing and styling and various scalp treatments. The students will study the theory of haircoloring, the pH scale, the structure of the hair in relation to haircoloring, the three classifications of haircoloring, the use of haircoloring to create special effects, and common problems encountered in haircoloring. The seven elements of design; form, line, movement, texture, size, value, and color will be introduced to the student with emphasis on form. Prerequisite: COS 1011

- COS 1003 Cosmetology Theory II** **5-0-0-5**  
This is a classroom study of the theory concept, application, and history of haircoloring; nails and disorders of the nails; anatomy of the arm and hand; and manicuring and pedicuring and wigs. Prerequisite: COS 1001
- COS 1033 Cosmetology Skills II** **2-0-21-9**  
This course is a continuation of instructor demonstrations and student live-model performances in the application of temporary haircolor, semi-permanent haircolor, permanent haircolor, hairlightening products and toners. The practice of pressing, curling and shaping the hair, hairwaving, perming, relaxing, hairstyling, manicuring and pedicuring are also presented in this course. This course is designed to give the experienced students an overview of the newest trends in hair sculpting and design and to develop advanced skills in sculpting design. Prerequisite: COS 1011
- COS 1004 Cosmetology Theory III** **5-0-0-5**  
This classroom study includes fundamentals of skin and its care, basics of facial massages, makeup application and corrective contouring, electricity and light therapy, professional business relationships and successful salon retailing, operating a beauty salon, and review of laws that govern cosmetologists. Prerequisite: COS 1001
- COS 1044 Cosmetology Skills III** **2-0-21-9**  
This course is a continuation of advanced demonstrations and clinical practices in all phase of beauty salon applications including sculptured nails and nail artistry. Students develop speed and accuracy in cosmetological skills which will enable them to be more effective and successful. The student will continue studies in laboratory practices in chemistry, sterilization, safety measures, the proper use of a curling iron, marcelling and speed in all areas of beauty salon service. Prerequisite: COS 1011
- COS 1055 Advanced Cosmetology Skills** **3-0-22-10**  
This course is designed for the student who wishes to complete the additional hours and live model projects, as set forth by the North Carolina State Board of Cosmetic Art Examiners so that one may take the Cosmetologist Exam without serving the six month apprenticeship. Students will review theories and concepts and will explore advanced methods of hairstyling, haircutting, and creative concepts in hair coloring, sculptured nails and nail art. Prerequisite: COS 1044
- COS 1101 Cosmetology Theory I** **4-0-0-4**  
This course introduces the beginning student to various aspects of cosmetology, ethics, human relations, and orientation. The course includes the study of the hair and skin; the effects of cosmetics and chemicals upon the hair and skin; cleansing, conditioning, and cutting of the hair; the basics of hairstyling; cosmetology law and first aid; the sterilization and sanitizing of implements and equipment. Students will also learn conduct in relation to co-workers and others.
- COS 1111 Cosmetology Skills I** **1-0-18-7**  
Cosmetology Skills I allows the student to develop cosmetology skills that will be needed when providing services to the public in a full service salon. The practical work is devoted to draping, fingerwaving, pincurling, marcelling, hairstyling, haircutting, hair relaxing, permanent waving, roller placement, thermal pressing, and curling. After demonstration by the instructor, hair and scalp treatments, shampooing, facials with massage, make-up, air waving, hair color and manicures will be practiced on other students. Skin analysis, corrective and maintenance facial treatments, color analysis, and professional make-up application will also be studied. Emphasis is placed on first aid skills and sanitary and safety precautions. Prerequisite: COS 1101

**COS 1102 Cosmetology Theory II****4-0-0-4**

This is a classroom study of advanced principles: chemical reformation (permanent waving, chemical relaxers); the basic principles of haircutting to achieve the various styles; how to style hair according to bone and body structure, facial features, lifestyle and customer preference; thermal pressing and styling and various scalp treatments. Prerequisite: COS 1101

**COS 1112 Cosmetology Skills II****1-0-1B-7**

A classroom study of advanced principles: chemical reformation (permanent waving, chemical relaxers); the basic principles of haircutting to achieve the various styles; how to style hair according to bone and body structure, facial features, lifestyle and customer preference; selection, care and styling of wigs and hairpieces; thermal pressing and styling and various scalp treatments. The student will study the theory of haircoloring, pH scale, structure of the hair in relation to haircoloring, three classifications of haircoloring, use of haircoloring to create special effects, and common problems encountered in haircoloring. The seven elements of design - form, line, movement, texture, size, value, and color will be introduced to the student with emphasis of form. Prerequisite: COS 1111

**COS 1103 Cosmetology Theory III****4-0-0-4**

This is a classroom study of the theory concept, application, and history of haircoloring, nails and disorders of the nails, anatomy of the arm and hand, and manicuring and pedicuring. Prerequisite: COS 1101

**COS 1113 Cosmetology Skills III****1-0-1B-7**

This is a continuation of instructor demonstrations and student live model performances in the application of temporary haircolor, semipermanent haircolor, permanent haircoloring, hairlightening products and toners. The practice of pressing, curling and shaping the hair, hairwaving, perming, relaxing, hairstyling, manicuring and pedicuring are also presented in this course. This course is designed to give the experienced students an overview of the newest trends in hair sculpting and design and to develop advanced skills in sculpting design. Prerequisite: COS 1111

**COS 1104 Cosmetology Theory IV****4-0-0-4**

This classroom study includes fundamentals of skin and its care; basics of facial massages, makeup application and corrective contouring; electricity and light therapy; professional business relationships and successful salon retailing; operating a beauty salon; and review of laws that govern cosmetologists. Prerequisite: COS 1101

**COS 1114 Cosmetology Skills IV****1-0-1B-7**

This course is a continuation of advanced demonstrations and clinical practices in all phase of beauty salon applications including sculptured nails and nail artistry. Students develop speed and accuracy in cosmetological skills which will enable them to be more effective and successful. The student will continue studies in laboratory practices in chemistry, sterilization, safety measures, the proper use of a curling iron, marcelling and speed in all areas of beauty salon service. Prerequisite: COS 1111

**COS 1105 Cosmetology Theory V****4-0-0-4**

This course is designed for students who wish to complete the additional hours and live model projects, as set forth by the North Carolina State Board of Cosmetic Art Examiners so that one may take the Cosmetologist Exam without serving the six month apprenticeship. Students will review theories and concepts and will explore advanced methods of hairstyling, haircutting, and creative concepts in haircoloring, sculptured nails and art. Prerequisite: COS 1101

**COS 1115 Cosmetology Skills V****1-0-18-7**

This course is designed to introduce the junior students (300-1200 hours) to all the services given in the full service salon. Each procedure will be explained verbally, followed by a review of a written task analysis, a live demonstration and/or audio/visual, and guided practice of the task on a mannequin supervised by the instructor. The procedures learned this quarter include an introduction to fingerwaving, pin curling, draping, wet construction hair styling, airwaving, marcelling, chemical reconstruction, shampooing and rinsing, scalp treatments, hair designing, hair sculpting, haircoloring, waxing, nail care, skin care, wig care, and styling will be a review and advanced in-depth technique in preparing the students for work in the salon. Prerequisite: COS 1111

**COS 1106 Cosmetology Theory VI****4-0-0-4**

This course is designed for students who wish to complete the additional hours and live model projects, as set forth by the North Carolina State Board of Cosmetic Art Examiners so that one may take the Cosmetologist Exam without serving the six month apprenticeship. Students will review theories and concepts and will explore advanced methods of hairstyling, haircutting, and creative concepts in haircoloring, sculptured nails and art. Prerequisite: COS 1101

**COS 1116 Cosmetology Skills VI****1-0-18-7**

This course is designed for students who wish to complete the additional hours and live model projects, as set forth by the North Carolina State Board of Cosmetic Art Examiners so that one may take the Cosmetologist Exam without serving the six month apprenticeship. Students will review theories and concepts and will explore advanced methods of hairstyling, haircutting, and creative concepts in haircoloring, sculptured nails and art. Prerequisite: COS 1111

**COMPUTER SCIENCE/LANGUAGE****CSC 106 Principles of Problem Solving****3-2-4**

This course is a prerequisite to all programming courses. Approved structured methods of problem definition, logic development, flowcharting and modularization will be explored to introduce the student to fundamentals of business computer programming solutions. The BASIC programming language will be used to develop, test and verify typical problem solutions. (F)

**CSC 151 Introduction to Computer Programming****3-0-3**

This course emphasizes problem solving through the use of algorithms and pseudocode. The pseudocode will be translated into a high level computer language. Languages introduced are BASIC, Logo and Pascal. Topics to be covered include basic input-output operations, simple control statements and looping. Related computer lab required.

**CSC 152 Pascal Programming****3-0-3**

This course provides a more detailed study of structured programming techniques, data types, procedures, functions, arrays, files and data structures. Related computer lab required. Prerequisite: CSC 151.

**CSC 161 FORTRAN Programming****3-0-3**

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 TRS-80 microcomputer. Prerequisite: CSC 151. (Sp)



- CSC 210 BASIC Programming** 3-2-4  
The student will study the BASIC programming language with applications including decisions and loops, arrays, file manipulation, menus and reports, sorting, tree structures, and graphics. Prerequisite: CSC 106. (F)
- CSC 215 Visual BASIC Programming** 3-2-4  
The student will study the use of a graphical user interface (GUI) to build applications. Topics include creation, writing, running, reviewing, and saving the design; variables and constants; statements; expressions; procedures; use of Visual BASIC forms and tools; program control; use of procedures and functions; and debugging and error handling. Prerequisite: CSC 210
- CSC 220 RPG/400 Programming** 4-3-5  
This course is a study of the RPG/400 programming language. Emphasis will be placed on the RPG fixed logic, calculations, control breaks, editing, arrays and tables, file access and manipulation, and interactive applications. Prerequisite: CSC 106
- CSC 225 CL/400 Programming** 3-2-4  
The student will design, code and execute a variety of Control Language (CL) programs. Use of CL variables, arithmetic and string manipulations, and display files will be discussed and implemented through a variety of hands-on demonstrations/assignments on the AS/400 mid-range computer. Prerequisite: CAS 200, CSC 106
- CSC 227 C Programming** 3-2-4  
The student will study the C programming language with applications containing calculations, loops, decisions, functions, arrays and strings, and basic file manipulation. Prerequisite: CAS 160 or permission of the instructor.
- CSC 228 Advanced C Programming** 3-2-4  
A continuation of CSC 227, this course will include advanced C programming applications, including pointers, keyboard and cursor manipulation, structures, unions, and ROM BIOS, memory and character display operations, color graphics, and in-depth file manipulations. Prerequisite: CSC 227.
- CSC 230 COBOL Programming** 5-3-6  
The COmmon Business Oriented Language (COBOL) is presented in detail, including structured concepts, calculations and comparisons, control breaks, sorting, file manipulations, tables, editing, and subprogramming. Prerequisite: CSC 106
- CSC 251 Algorithms & Programming** 3-0-3  
A course in various programming concepts, including computer characteristics and operating systems as needed, but with emphasis on algorithms using pseudocode. Original algorithms are developed, programmed and documented. Use is made of subroutines, disc files, arrays and the various programming paraphernalia during the course. Related computer lab required. Prerequisite: CSC 152.
- CSC 252 Assembly Language and Machine Operation** 3-0-3  
This course includes data representation in the computer, computer logic, and a brief look at circuits, hexadecimal and binary numbers and arithmetic with emphasis on the study and practice of assembly language programming. Related computer lab required. Prerequisite: CSC 251.
- CSC 253 Data Structures** 3-0-3  
The use and implementation of various information structures, including arrays, records, stacks, queues, linked lists and trees. Related computer lab required. Prerequisite: CSC 251.



## DANCE

### **DAN 151 Introduction to Modern Dance** 1-2-2

This course will introduce the student to the basic principles of dance and will include philosophy and some early history of dance as an art form. No previous experience in dance is needed.

### **DAN 152 Beginning Modern Dance and Improvisation** 1-2-2

This course will continue training in modern dance technique and movement and will include specific history of modern dance from the 1920's to 1990's.

### **DAN 153 Beginning Modern Dance and Composition** 1-2-2

This course will continue the technique started in Dance 151 and 152 with more emphasis on original work. The course will end with a workshop at which students' works will be presented.

## DRAFTING DESIGN

### **DDF 201 Design Drafting I** 2-6-4

Charts and graphs, design layouts and working drawings of gears, gear train drives, belt and pulley drives, and chain and sprocket drives. Prerequisite: DFT 101, 102, and 103

### **DDF 202 Design Drafting II** 2-6-4

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: DDF 201.

### **DDF 212 Jig and Fixture Design** 3-3-4

Jig and fixture design is the process of designing and developing the tools, methods, and techniques necessary to improve manufacturing efficiency and productivity. Commercial standards, principles, practices and tools of jig fixture design will be studied. Individual project and design work will be assigned to acquaint students with the basic process of design. Prerequisites: DDF 201 and DDF 202.

## DESIGN (CREATIVE AND AESTHETIC)

### **DES 101 Graphic Layout and Design I** 3-3-4

This is the beginning class for the commercial graphics program and is excellent for anyone interested in graphic layout and design. Students will be exposed to the different elements involved in a layout such as display type, artwork, and body copy. Students will begin to work with tools needed to produce layouts and will begin to use all these elements in the creation of posters, ads, and logos.

### **DES 102 Graphic Layout and Design II** 3-3-4

This course follows DES 101 in the production of original designs and layouts. Students should be accomplished in the handling of designers tools and supplies and will be expected to produce artwork using the sketching development process. Creativity will be emphasized and an exploration of mechanical artwork and printing processes will begin. Prerequisite: DES 101 or permission from the instructor

### **DES 103 Typography and Design III** 3-3-4

This course will place emphasis on typography as a design tool. Assignments will be type/heavy. Some use of computers will be involved, and the study of the history and anatomy of type will be explored. Prerequisites: DES 101, 102, or permission from the instructor

**DES 104 Computer Graphics****2-3-3**

Computer Graphics is a course designed to give the student an overview of the uses of computers in the field of graphics and type generation. The course work encompasses the Macintosh computer with PageMaker and Free-land software packages. The students will be introduced to the basic functions of hardware and software applications as they apply to the needs of the industry. Prerequisites: DES 101, 102, 103, or permission from the instructor

**DES 105 Graphic Arts****1-6-3**

In this course the students will become familiar with skills and techniques necessary to prepare a design for printing. Covered will be copy camera operation in the making of line shots and halftones. Also, the student will be expected to strip negatives, line and halftones, incorporating various elements such as step and repeats burns, multiple burns, screen tints, duo tones and any other specialized procedures in darkroom work. Students must be able to produce daylight proofs to assure that all registration and stripping procedures are correct. Will be exposed to various types of films and materials available. Prerequisites: DES 101, 102, 103, 104, or permission from the instructor

**DES 111 Airbrush I****2-3-3**

This class will be an exploration of the many uses of the airbrush. The first meeting will serve as an introduction where the fundamentals of airbrush techniques will be covered extensively. Upon completion of the first two assignments, students will be encouraged to go into whichever area of airbrushing interests them most, whether it be freehand or controlled.

**DES 201 Commercial Art I****3-3-4**

The commercial art course series is designed for the development of areas in graphic design, commercial art, and illustration. Students will develop techniques used in the creative process, and emphasis will be placed upon individual areas of interest. Prerequisites: DES 101, 102, 103, 104, or permission from the instructor

**DES 202 Commercial Art II****3-3-4**

The commercial art course series is designed for the development of areas in graphic design, commercial art, and illustration. Students will develop techniques used in the creative process and emphasis will be placed upon individual areas of interest. Assignments become more complex and uses of mediums and equipments are expanded. Prerequisites: DES 101, 102, 103, 104, 201, or permission from the instructor

**DES 203 Commercial Art III****3-3-4**

The commercial art course series is designed for the development of areas in graphic design, commercial art, and illustration. Students will develop techniques used in the creative process and emphasis will be placed upon individual areas of interest. Three-dimensional design problems will be introduced. Students will be asked to work in group environments with leadership qualities being explored. Prerequisites: DES 101, 102, 103, 104, 201, 202, or permission from the instructor

**DES 204 Commercial Art IV****3-3-4**

The commercial art course series is designed for the development of areas in graphic design, commercial art, and illustration. Students will develop techniques used in the creative process and emphasis will be placed upon individual areas of interest. Students will be expected to complete projects accurately and in a timely manner being able to present finished artwork to a client. Prerequisites: DES 101, 102, 103, 104, 201, 202, 203, or permission from the instructor

**DES 212 Illustration I** 3-3-4  
This course is provided for those whose special talents are in illustration. Also, it's excellent for those not in the Commercial Graphics program. Students are encouraged to develop their own individual techniques while also exploring new and different methods. Classroom atmosphere is excellent due to input from each student's successes and failures. Various mediums will be used such as water color, pastels, pencil, pen and ink, acrylic painting, or an combination of these. Frequent critiques insure that each process is well thought out, and the finished piece is successful.

**DES 214 Illustration II** 3-3-4  
The second in a two part series. Students will continue to explore the many mediums available to them. The students will be required to represent varied techniques and content drawings. Prerequisite: DES 212 or permission from the instructor

**DES 216 Portfolio Preparation** 1-6-3  
This course will focus on the importance of developing and organizing a good portfolio as preparation for the job market. Students will organize and prepare their portfolio pieces for job interviews, which will be set up for practice. Also, students will prepare resumes, cover letters, personal letterheads, and logos. Job searching will begin and upon graduation students will be ready and comfortable in actual job interview situations. Prerequisites: DES 101, 102, 103, 104, 201, 202, 203, 204, 212, 214, GRA 152, 153, PHO 121, 122, 123, or permission from the instructor

**DES 220 Computer Graphics** 2-2-3  
An introduction to the generation of graphics with the aid of a computer. Particular attention will be given to 2-D and 3-D forms, advertising, logos, typography and related design features. Prerequisite: Computer knowledge preferred but not required

## **DRAFTING**

**DFT 101 Engineering Drawing I** 0-6-3  
The field of drafting is introduced as the student begins the 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, freehand orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

**DFT 102 Engineering Drawing II** 0-6-3  
The application of orthographic projection principles to the more complex drafting problems, views, revolutions, and sections. 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 will be studied. Dimensioning practices approved by the American National Standards Institute will also be included. Prerequisite: DFT 101.

**DFT 103 Engineering Drawing III** 0-6-3  
This course is a continuation of DFT 102 - Engineering Drawing II. Design and working drawings and isometric pictorials will be studied. Special emphasis will be given to the specific interest of the student. Prerequisite: DFT 101 and DFT 102.

**DFT 209 Industrial Systems Schematics** 2-3-3  
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 211 Mechanisms** 3-3-4  
Mathematical and drafting room solutions of problems involving principles of machine elements. Applications and construction of fasteners, keys, springs, gears, and cams will be covered by lecture and lab activities. Prerequisites: DFT 101, 102 and 103



**DFT 220 Computer Aided Drafting and Design I** 2-3-3  
A study of the basic concepts that a drafter or potential drafter needs to know about CAD. The course will address several areas pertaining to CAD, such as why computer-aided drafting is used; types of CAD equipment; why CAD is used; techniques used in the operations of CAD.

**DFT 221 Computer Aided Drafting and Design II** 2-3-3  
Further practice in Computer Aided Drafting (CAD) for the advanced student. At the completion of this class, the student should be able to do any type of drawing on the computer, such as electronics, mechanical, architectural, and schematic.

**DFT 222 Technical Illustration** 3-3-4  
The techniques of design and illustration using isometric, oblique, and perspective drawings. Including: sketching, inking, shading, airbrush techniques, renderings, and finished illustrations. Prerequisite: Permission of instructor.

## **ECONOMICS**

**ECO 201 Principles of Economics** 3-0-3  
An introduction to economic principles, problems, and policies, the nature of economic concepts, the principles and problems involved in national incomes, employment and prices, and aggregate demand. (F)

**ECO 202 Principles of Economics** 3-0-3  
A continuation of Economics 201 with emphasis on the market and price system, the allocation of resources, business cycles, monetary and fiscal policy. (W)

**ECO 203 Principles of Economics** 3-0-3  
A continuation of Economics 202 with emphasis on a study of the international economy and perspectives on economic change and comparative systems. (Sp)

**ECO 204 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 225 Business and Economic Statistics** 3-0-3  
An introduction to basic modern statistics for those new to the subject. The study uses real-life situations and applications to describe what statistics is, how and when to apply statistical techniques to managerial situations, and how to interpret the results. (W)

**ECO 250 Managerial Economics** 3-0-3  
This course is designed to acquaint the manager with various economic concepts which include: opportunity cost, supply and demand, cost, comparative advantage, competition, monopoly, pricing, monetary policy, fiscal policy, and international economics. (W)

**ECO 260 Consumer Economics** 3-0-3  
A study of personal financial problems in such areas as housing, budgeting, loans, banking, taxes, credit and insurance. (W)

**ECO 261 Labor Economics** 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. (Su)

## **EDUCATION**

**EDU 101 Foundations in Childhood Education** 3-0-3  
This course is a study of education as an institution in American Society, its foundation, development, function, and organization. The course focuses on the philosophy, theory, history, and federal, state, and local structure as it applies to public school classrooms.

- EDU 103 Teacher Associate Principles and Practices** 3-0-3  
 This course is designed to provide a comprehensive overview of the teacher associates' role within the elementary school. Topics will include professionalism, parent relations, job responsibilities, cultural diversity, community resources, communication skills, and identifying the optimal learning environment.
- EDU 104 Child Care Credential I** 3-0-3  
 This course provides the first half of instruction necessary to qualify for the NC Child Care Credential. Areas of study include introduction to the child care profession, child growth and development, and getting to know the whole child.
- EDU 105 Child Care Credential II** 3-0-3  
 This course provides the second half of instruction necessary to qualify for the NC Child Care Credential. Areas of study include developmentally appropriate practices, positive guidance, and providing a safe and healthy environment.
- EDU 107 Child Administration, Supervision and Standards** 5-4-7  
 This course presents policy and procedures for operation of group care for children. Topics include principles of supervision, budgeting and funding, relationships with service and regulatory agencies, and state licensing guidelines. This course meets the NC Child Day Care Section's requirements for child day care administrators.
- EDU 110 Introduction to Trade/Industrial Education** 3-0-3  
 The philosophy, scope and objectives of industrial, vocational and occupational education; survey of employment opportunities; current events; and members of instruction in vocational programs.
- EDU 111 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 112 Instructional Methods** 3-0-3  
 This course includes the various instructional methods in vocational education with emphasis on behavioral objectives and individualized instruction.
- EDU 113 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 114 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 117 Instructional Television** 1-0-1  
 This course is designed to teach the use of color portable cameras in educational and industrial settings. Students will learn the use of the equipment and the development of informational video tapes. Students will learn how to use storyboards and script writing in order to give direction and meaning to their video programs.
- EDU 122 Child Health, Safety and Nutrition** 4-0-4  
 This course will introduce the factors influencing a young child's health. Emphasis will be placed on safety precautions and treatment procedures, and nutrition concepts and requirements.

- EDU 125 Creative Activities in Early Childhood** 5-3-6  
This course emphasizes the use of creative activities for children in art, music, movement, and dramatics. Topics include creative learning environments, planning and implementing developmental appropriate teaching materials for the classroom.
- EDU 205 Behavior Management** 3-0-3  
This course presents guidelines for positive child guidance and includes the study of behavior management as an educational tool. Students will explore strategies for guiding behavior using productive and positive techniques.
- EDU 213 Children's Literature** 5-0-5  
This course is a study of literature for young children. Topics include criteria for evaluating the literary value of children's books and strategies for sharing literature with young children.
- EDU 216 Communication Activities in Early Childhood** 5-3-6  
This course is designed to teach methods of developing communication skills in children. Emphasis will be placed on the basic components of the language arts speaking, listening, writing, and reading (beginnings of literacy), and their interrelatedness.
- EDU 217 Exploration Activities in Early Childhood** 5-3-6  
This course is an introductory study of discovery experiences in science, math, and social studies. Topics will include concepts, facts, phenomena and skills in each area which young children think about, discover, and develop.
- EDU 223 Working with the Child's Family and Community** 3-0-3  
This course studies the relationship among the family and programs for children/school and community. Topics will include study of the family's influence on the child, the interaction between the family and the caregiver/teacher associate, and the role of the caregiver/teacher associate in assisting families with their children and community resources which serve children and their families.
- EDU 225 Working with Children with Special Needs** 5-3-6  
This course is an introduction to working with children who have special needs. Topics include identification, causes, assessment, intervention strategies and techniques, and support services.
- EDU 228 Math Methods and Materials for Children** 2-3-3  
This course will explore the concepts, methods, and approaches for the teaching of math to children in elementary school. Students will identify and implement developmentally appropriate math experience.
- EDU 229 Reading and Writing Methods and Materials for Children** 2-3-3  
This course explores the methods and materials used in the teaching of reading and writing in elementary schools. Topics to be covered include importance of literacy, various reading/writing approaches and assessments and strategies for instruction.
- EDU 233 Curriculum Principles in Elementary School** 5-0-5  
This course review major elements of elementary school curriculum planning. Topics include assessment of children and curriculum, instructional planning, and environment design.
- EDU 234 AV Materials and Equipment** 3-0-3  
Instruction in the use of AV equipment and materials. Special attention is given to the variety equipment of materials available. Hands-on preparation and presentation of lesson is the main activity in the learning process.



**EDU 240/241/242 Seminar I, II, III** **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 program. The practicum correlating with the seminar must be taken the same quarter.

**EDU 244 Seminar I: School Age Environment** **1-0-1**  
A seminar for the Teacher Associate program gives the student an opportunity to express practicum experiences. Emphasis is placed on special learning techniques, communications, and lesson and unit planning for the school age environment. The practicum correlating with the seminar must be taken the same quarter.

**EDU 245 Seminar II: Special Needs Environment** **1-0-1**  
A seminar for the Teacher Associate program gives the student an opportunity to express practicum experiences. Emphasis is placed on special learning techniques, communications, and lesson and unit planning for the special needs environment. The practicum correlating with the seminar must be taken the same quarter.

**EDU 246 Seminar III** **2-0-2**  
A seminar for the Teacher Associate program gives the student an opportunity to express practicum experiences. Emphasis is placed on special learning techniques, communications, and lesson and unit planning. The practicum correlating with the seminar must be taken the same quarter.

## **ELECTRICITY**

**ELC 100 DC and AC Fundamentals** **5-4-3-8**  
An introduction to passive electronic components such as resistors, capacitors and inductors is presented. Ohm's Law and Kirchoff's voltage and current laws are introduced. The concepts of power and energy in electrical circuits are covered. The sine wave as it relates to voltages and currents in electrical circuits is studied. Series, parallel and series-parallel circuit design, analysis and troubleshooting are emphasized with theory and with a concentration on hands-on, supervised laboratory exercises. Laboratory exercises also provide instruction and extensive hands-on experience in using analog and digital multimeters, function generators, oscilloscopes, impedance analyzers, frequency counters, and AC/DC power supplies. Students construct computer models of DC and AC circuits for simulation and analysis, using electronic workbench software. Prerequisite: MAT 150

**ELC 205 Applied Electricity** **3-3-4**  
A qualitative study of units of measurement, electrical quantities, simple circuits, electro-motive forces, current power, laws, basic electrical instruments and measurements, resistance, impedance, and basic circuit components. Concepts taught are generally limited to fundamentals with very little emphasis placed on quantitative aspects. Laboratory work will teach the proper use and care of basic hand tools and the basic manual skills used in working with electricity. Measurement techniques and safety practices will be stressed throughout.

**ELC 1101 Fundamentals of Electricity** **4-12-8**  
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. Fundamental concepts of alternating current flow, reactance, impedance, phase angle, power and resonance. Instruction in the use of electrical test instruments in circuit analysis.

**ELC 1102 Residential Wiring** **4-12-8**

Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, and National Electrical Code regulations in actual building mock-ups. Prerequisites: ELC 1101 or permission from the instructor.

**ELC 1103 AC/DC Machines** **4-12-8**

Provides fundamental concepts in single and polyphase alternating current circuits. Also, provides basic concepts concerning the characteristics and applications of DC, single phase and three-phase motors, transformers, power measurement and generators. Prerequisites: ELC 1101 or instructor's permission.

**ELC 1104 Controls of AC/DC Machines** **4-12-8**

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. Prerequisites: ELC 1101 or instructor's permission

**ELC 1119 National Electrical Code-Residential** **6-0-6**

A study of the National Electrical Code and its relationship to state and local electrical codes.

**ELC 1120 Troubleshooting Methods** **5-3-6**

Provides instruction and application in various methods of troubleshooting components, circuits and systems.

**ELC 1121 Industrial Wiring** **3-3-4**

Provides fundamental concepts in industrial and commercial wiring. Also, a study of various raceways used in industry, including types of conduit and the preparation and installation of each type.

## **ELECTRONICS**

**ELN 104 Semiconductor Circuits and Applications** **5-8-3-10**

The theory of operation of the P-N junction is explained. Diodes and their applications in power supply rectifiers, clamping and limiting circuits, and voltage multipliers are studied. Special diodes such as zener diodes, varactors, schottky diodes, tunnel diodes, LED's, photodiodes, and PIN diodes are covered. The P-N junction theory is expanded to cover bipolar and FET transistor theory. Biasing of bipolar and FET devices and the application of these devices in small signal and power amplifier circuits are explored. Amplifier frequency response is also covered. Extensive hands-on exercises are done in the laboratory where analysis and troubleshooting of the circuits are stressed. Prerequisite: ELC 100.

**ELN 105 Semiconductor Control Devices** **4-4-0-6**

A study of thyristors, unijunction transistors and optoelectronic control devices. Silicon-Controlled Rectifiers (SCR's), Silicon-Controlled Switches (SCS's), DIAC's, TRIAC's and the Unijunction Transistor (UJT and PUT) are examples of the thyristors covered. Optoelectronic theory and devices such as photodiodes, phototransistors, light activated thyristors, opto-couplers and laser diodes are studied. Emphasis is placed on practical industrial application of these devices. Supervised laboratory providing hands-on experience for the student. Prerequisite: ELN 104 or permission of the instructor

**ELN 110 Technical Documentation****2-0-3-3**

The course introduces the student to software schematic drawing packages. Electronic packaging techniques are learned through the packaging design of an electronic product. Flowcharts are created for troubleshooting electronic systems. Techniques for documenting reports and lists of instructions are studied. Methods of drawing cable assemblies and wiring lists are presented and practiced in shop sessions. Word processor software is employed for generating various documents. Project planning through milestones charts is explored. Prerequisite: course should be taken simultaneously with ELC 100

**ELN 111 Fabrication Techniques****1-2-3-3**

This course contains a potpourri of subjects critical to the development of those manipulatory skills required of the well rounded electronics technician. Practical hand-on experience will be gained in this primarily laboratory and shop course. One segment includes extensive training in soldering, desoldering and printed circuit board repairs using the latest in high reliability interconnection technology. Other subjects include, but are not limited to; breadboarding techniques; printed circuit board layout, design and fabrication; care and preservation of electronic components and hardware. The student will receive instructor certification for each skill required in this course. Prerequisite: permission of instructor

**ELN 207 Digital Electronics****5-6-3-9**

A comprehensive course covering aspects of digital electronics from number systems through integrated combinational logic circuits. Subjects included are codes, Boolean Algebra, DeMorgan's Theorems, Karnaugh mapping, logic gates, noise and fanout considerations, integrated circuit logic families, flipflops/multivibrators, counters, registers, memories, and other digital circuits leading up to a study of the microprocessor/microcontroller. A heavy emphasis is placed on hands-on projects in lab. Design, analysis and troubleshooting techniques are covered in lecture and experienced in lab/shop projects. Students construct computer models of digital logic circuits for simulation and analysis, using electronic workbench software. Prerequisite: ELN 104 or permission of instructor

**ELN 208 Microprocessor Fundamentals****2-4-3-5**

The microprocessor is first introduced in general terms using a generic model. The 6502 microprocessor is then covered in depth stressing architecture, machine language programming and associated subjects. The student will then transfer his/her knowledge of the 6502 microprocessor to learn the difference in programming various other microprocessors. Emphasis is placed on student programming and troubleshooting projects in the lab. The peripheral interface adapter is introduced and applications are explored in the lab. Prerequisite: ELN 207 or permission of instructor

**ELN 209 Microprocessor Interfacing****2-4-3-5**

This course is designed to give the student an in-depth understanding of various methods for interfacing the microprocessor to external devices. Projects in lab/shop will give the student experience in positive microprocessor control of stepper motors, relays, thyristor controls, robotics, and other industrial devices. Student designed projects will use input sensors such as optoelectronic devices, limit switches, and other industrial devices interfaced to the microprocessor as control elements. Methods of using the I/O capabilities of commercial microcomputers to control industrial devices are explored. Prerequisite: ELN 208 or permission of instructor

**ELN 211 Analytic Troubleshooting** 2-4-0-4  
This course is designed to bring together all the concepts of troubleshooting that have been covered by the instructor and experienced by the student during the course of the curriculum. Troubleshooting techniques and problems solving theories will be explored. A scheme for learning from past fault corrections to develop preventative maintenance methodologies is presented for "troubleshooting in advance of the fault." Extensive problem scenarios and group participation are used in presentations. Prerequisite: permission of instructor

**ELN 215 Industrial Electronics** 2-4-3-5  
Provides instruction in the selection and application of sensors, process control devices, transducers and other hardware used to control industrial equipment. An introduction to pneumatic and hydraulic actuators and controls is included. A segment on programmable logic controllers covers relay ladder logic and PLC ladder logic diagram analysis, design and troubleshooting. Extensive hands-on experience in lab/shop includes projects requiring programming of industrial PLC's in industrial applications such as conveyor systems, and AC/DC motor control. Tours of local industrial sites will be included as time permits. Prerequisite: ELN 105 or permission of instructor

**ELN 217 Linear Integrated Circuits** 4-12-0-10  
A presentation of linear integrated circuits with an emphasis on the operational amplifier and its applications. Types of applications include op-amp, comparators, summing amplifiers, integrators and differentiators, instrumentation amplifiers, oscillators, phase locked loops, active filters, and voltage regulators. Extensive laboratory experimentation concentrates on circuit design, analysis and troubleshooting. Prerequisite: ELN 104 or permission of the instructor

**ELN 221 Advanced Programmable Logic Controllers** 4-4-0-6  
An in-depth study of the programmable logic controller. Special emphasis is placed on practical industrial applications. Students will design and implement several projects which will require programming, interfacing, program debugging and system troubleshooting. Prerequisite: Permission of the instructor.

**ELN 1118 Basic Electronics** 3-3-4  
An introduction to semiconductor diodes, silicon controlled rectifiers (SCR) and transistors. A study will be made of their operation, characteristics, testing procedures and applications

## ENGLISH

**ENG 090 Enrichment English** 2-3-3\*  
This course provides basic English identified as necessary to succeed in the freshman composition sequence. A study of major structural errors, grammar, mechanics, punctuation, spelling, journal-keeping, and paragraph and essay writing are components of the course. This course is oriented toward student success.

\*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification for a full-time student.

**ENG 150 Writing With The Computer** 0-2-1  
This course is designed to teach students how to use the personal computer for writing, editing, and printing college essays, reports, and research papers. The majority of this class will be hands-on experience with the computer. Students will be required to complete study packets, lab assignments, and writing assignments for other college courses. (F,W,Sp,Su)



- ENG 151 Freshman Composition I** **3-0-3**  
 A writing and reading intensive course which emphasizes writing as process and includes a study of the elements of the essay, library use, language study, and the development of word processing skills. Rhetorical strategies for writing illustration, narration, and description are studied as well as strategies for such typical college writing assignments as the critical book review and the essay examination. Prerequisite: ENG 090 and/or RED 090 or satisfactory scores on placement test. (F,W,Sp,Su)
- ENG 152 Freshman Composition II** **3-0-3**  
 A writing and reading intensive course which emphasizes the writing process and includes critical reading and thinking, library use and language study. Rhetorical strategies for writing expository and persuasive essays are studied. Prerequisite: ENG 151. (W, Sp, Su)
- ENG 153 Freshman Composition III** **3-0-3**  
 An introduction to writing the research paper and to analyzing selected works of literature. Library research, the proper procedures for planning and writing the research paper, and correct documentation are studied. In addition, the course involves study of selected short stories, poems, and plays, and the conventions of each genre. Prerequisite: ENG 152. (F,Sp,Su)
- ENG 154 Technical Report Writing** **3-0-3**  
 A course for technical students who seek training in letter writing, report writing, and oral and written communications skill in business and industry. Prerequisite: ENG 152.
- ENG 161 Honors English I** **3-0-3**  
 An advanced freshman composition course which emphasizes critical thinking and reading, essay writing, and library research. Prerequisite: Above satisfactory scores on the placement test. (F)
- ENG 162 Honors English II** **3-0-3**  
 A continuation of English 161. The course is organized thematically around relevant issues. Writing assignments include the expository essay, persuasive essay, and research paper. Prerequisite: ENG 161 or recommendation of an English instructor. (W)
- ENG 163 Honors English III** **3-0-3**  
 An advanced course that emphasizes reading, analyzing and writing about selected works of literature. Additional objectives include becoming knowledgeable of the conventions of fiction, poetry, and drama; responding both through discussion and writing about selected works; and gaining a deeper appreciation for good literature and its relevance. Writing assignments include several short analytical papers and one researched and documented longer paper. Prerequisites: ENG 0111 and 0112, or ENG 0101 and 0112. (Sp)
- ENG 170 Public Speaking** **3-0-3**  
 A course in oral communication which includes instruction in effective public speaking. The course emphasizes the preparation and presentation of speeches for various occasions, along with the opportunity to listen and evaluate other's speeches. Prerequisite: None. (F,W,Sp,Su)
- ENG 171 Advanced Public Speaking** **3-0-3**  
 A continuation of ENG 170, a course recommended for students transferring to four-year schools that require a full semester of public speaking. Prerequisite: ENG 170. (F,W,Sp,Su)
- ENG 180 Journalism** **3-0-3**  
 A course on techniques of identifying news, gathering information, writing effective accurate news and feature stories. (F)
- ENG 181 Journalism Practice** **0-3-1**  
 A course on how to prepare news copy for the press. It is primarily for the preparation of the school newspaper. This course can be taken as many as six times.

- ENG 182 Photo Journalism** **0-3-1**  
A course on layout design, documentation, graphics, and copy preparation. It is primarily for the preparation of a quarterly journal and can be taken as many as six times. (F,W,Sp)
- ENG 250 World Literature I** **5-0-5**  
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: Successful completion of freshman English courses.
- ENG 251 British Literature I** **5-0-5**  
A reading and writing intensive survey of major British writers from the Old English through the neo-classic period, their works, and the historical events and philosophical movements which influenced them. Term papers and projects, optional. Prerequisites: Successful completion of freshman English courses.
- ENG 252 British Literature II** **5-0-5**  
A reading and writing intensive survey of major British writers from the romantic through the modern periods, their works, and the historical events and philosophical movements which influenced them. Term papers and projects, optional. Prerequisites: Successful completion of freshman English courses.
- ENG 253 American Literature I** **5-0-5**  
A reading and writing intensive survey of American literature primarily of the nineteenth century, highlighting major literary figures and their representative writings. Special emphasis is placed on the unique contributions of each author toward the formulation of an American identity. Term papers and projects, optional. Prerequisites: Successful completion of freshman English courses.
- ENG 254 American Literature II** **5-0-5**  
A reading and writing intensive survey of modern American literature beginning with a unit on the turn-of-the-century movement of Realism, and continuing through major authors and movements of the twentieth century. Term papers and projects, option. Prerequisites: Successful completion of freshman English courses.
- ENG 260 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.
- ENG 261 Creative Writing II** **3-0-3**  
Continued guidance and experience in producing various forms of literary expression—poetry, short fiction, the essay—including the procedures involved in getting published. Prerequisite: ENG 260.
- ENG 265 Special Topics in Literature** **variable**  
A course designed around 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 1101 Communication Skills** **3-0-3**  
A course for vocational students designed to promote the practical application of effective communication in speaking, listening and writing.



**FOREIGN LANGUAGES**..... see **FRE, GER, SPA** for course descriptions.

## **FRENCH**

**FRE 150 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.

**FRE 160, 161, 162 Fundamentals of French I, II, III** 3-2-4  
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.

**FRE 260, 261, 262 Intermediate French I, II, III** 3-2-4  
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. Prerequisites: Fundamentals of French I, II, III or two years of high school French.

## **GEOGRAPHY**

**GEO 160 Physical Geography** 3-2-4  
The earth's astronomical relations, factors of weather and climate, and physiographic features. Two lab hours per week. (F)

**GEO 161 Economic Geography** 3-0-3  
Geographic factors involved in production, distribution, consumption, and conservation of the major crops, minerals, and industries of the world. This course emphasizes oral communication via a seminar format. (W)

**GEO 162 World Regions** 3-0-3  
Relation of human activities to the larger geographic regions of the world. (Sp)

## **GEOLOGY**

**GEL 151 Physical Geology I** 3-3-4  
The nature and occurrence of rocks and minerals, together with crustal features of the earth's surface. Laboratory work devoted to a study of rocks and minerals and their structure and occurrence. (F)

**GEL 152 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 153 Historical Geology** 3-3-4  
Emphasis in this course is on the stratigraphic and fossil history of the earth as found in the earth's crust together with the necessary information on both plant and animal kingdoms to trace the evolution of life down through the ages. Laboratory work will be devoted to experience with fossils, geologic maps, and aerial photographs. (Sp)

**GEL 160 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.

## GERMAN

**GER 150 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.

**GER 160, 161, 162 Fundamentals of German I, II, III** 3-2-4  
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.

## GRAPHICS

**GRA 151 Offset Printing I** 2-3-3  
A study of the printing industry, the scope of it, the theory of the four major methods used today. The importance of health and safety in the workplace will be thoroughly covered. We will learn use of the process camera, film and darkroom techniques, film assembly, and plate preparation. Press operation and some bindery skills will also be learned.

**GRA 152 Offset Printing II** 2-3-3  
Based on what the student has learned in the Offset Printing I course, we will move into more advanced skill development. Each student will bear their part of the responsibility in the production of a book. All the skills and knowledge acquired in Offset Printing I, plus new ones, will be put to work in this class. At completion of this class the student will have great understanding of the printing process, what it takes to get something printed, and what kind of employment may be in the printing industry that may interest them. Prerequisite: GRA 151 or permission from the instructor

**GRA 153 Silkscreen Printing** 1-6-3  
Basic serigraphy or color stencil printing. Designs are created and prepared for production, using various techniques including cut-stencil, direct, and photo emulsion.

## HEALTH

**HEA 250 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 260 Special Topics in Health** Variable  
This course will deal with timely and/or special interest topics in the health area. The credit and the time in which the course will be offered will vary depending upon the subject and specific situation.

## HISTORY

**HIS 151, 152, 153 World Civilization I, II, III** 3-0-3(each)  
A study of historical events, cultures, societies and beliefs in a global context covering three time periods: Ancient and Medieval; Renaissance through 18th Century; 19th and 20 Century. Prerequisite: satisfactory placement scores in reading and English or completion of RED 090 and ENG 090.

**HIS 170 Black History** 3-0-3  
A study of the history of the American Negro from his ancient African beginnings to the present. In addition to essential historical facts, the course will emphasize a critical interpretation of the forces which have influenced the Negro's interaction with his American environment.

**HIS 260, 261, 262 History of the United States I, II, III** 3-0-3(each)  
A survey of the history of the United States: 1492-1840; 1840-1896; 1896 to the present.  
Pre-requisite: satisfactory placement scores in reading and English or completion of RED 090 and ENG 090. (F,W,Sp)

**HIS 265 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 299 History of North Carolina** 3-0-3  
This course is designed to acquaint the students with the history of North Carolina from the 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. Pre-requisite: satisfactory placement scores in reading and English or completion of RED 090 and ENG 090.

## **HUMANITIES**

The following courses, in addition to specified humanities courses, can be taken to fulfill the humanities requirements for the A.A., A.S., and A.A.S. degrees. If a specific course is required for a College Transfer degree, then it cannot be used to satisfy the humanities requirement. ENG 170 (Public Speaking) cannot be used to fulfill the humanities requirement in College Transfer programs.

ENG 250, 251, 252, 253, 254, 260, 261, 265,  
ART 160

MUS 151, 152, 153, 181, 182

PHI 260, 261, 262

REL 160, 161, 162, 170\*

DAN 151, 152, 153

ENG 171 (Technical Programs)

Foreign language courses may also be used to fulfill humanities requirements.

Students should check catalogs at transfer institutions regarding transferability of these courses.

**HUM 160 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,Su)

**HUM 161 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.

## **HYDRAULICS**

**HYD 235 Hydraulics and Pneumatics** 3-0-3  
Industrial hydraulics will introduce fluid power theory, component functions, interpreting schematic circuits, troubleshooting hydraulic systems, and circuit design. This course is designed for anyone interested in fluid power beginning at the basic level.





- ISC 118 Industrial Safety** **3-0-3**  
 A study of the development of industrial safety; accident occurrence and prevention; safety education and training; accident reporting and records; employer/employee responsibility; safety organizations; first aid; mechanical safeguards; personal protective equipment use; materials handling; fire prevention; safety codes; and accident statistics.
- ISC 121 Industrial Engineering Applications** **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. (F)
- ISC 216 Job Analysis and Evaluation** **3-0-3**  
 This study is an integral part of Wage and Safety 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.
- ISC 221 Production Planning and Management** **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. (Sp)
- ISC 236 Manufacturing Quality Control** **3-0-3**  
 Modern concepts of the quality function in industry to maximize customer satisfaction at optimum product cost. Special attention will be given to statistical process control.

## **MATHEMATICS**

- MAT 090 Basic Math** **2-3-3\***  
 This course provides a strong foundation in 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)
- MAT 095 Basic Algebra** **2-3-3\***  
 This course provides a strong foundation in algebra skills essential for students planning further study in algebra. Topics include integers and rational numbers, operations of polynomials, the solution and graphing of linear equations and inequalities, factoring. Prerequisite: MAT 0090 or satisfactory placement test score. (F,W,SP,Su)

\*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification for a full-time student.

- MAT 107 Mathematics Principles** **3-0-3**  
 MAT 107 provides a review and application of the basic arithmetic skills and skills of estimation. In addition, MAT 107 offers an extensive program of diagnosis, instruction, and application of ratio and proportion, percent, English measurement, metric measurement, the integers, and evaluation and solution of algebraic expressions and equations. Prerequisite: Satisfactory placement test score in arithmetic or MAT 090.
- MAT 111 Technical Mathematics** **3-0-3**  
 A course in basic applied geometry and right triangle trigonometry for students in management, police science, and other technical areas. Topics include: angles, triangles and other plane figures, solid figures, areas, volumes, trigonometric ratios, triangle solving, and vectors. Prerequisite: MAT 0090 or satisfactory placement test score in basic math. (W,Sp)



**MAT 140 Intermediate Algebra****5-0-5**

A course designed for students who plan to take College Algebra and Trigonometry (MAT 151) but who do not have an adequate background in algebra. The course includes a detailed study of: factoring; rational expressions; graphing; linear, quadratic, and linear absolute value equations; linear and quadratic inequalities; rational exponents and radicals. MAT 140 is developmental in nature and carries elective credit only. A student who has received credit (with at least a "C") for MAT 151 or MAT 152 may not take MAT 150 for credit. Prerequisite: Satisfactory placement test scores in arithmetic (or MAT 090) and algebra (or MAT 095). (F,W,Sp,Su)

**MAT 150 Finite Math****5-0-5**

This course provides an introduction in as nontechnical setting as possible to the basic concepts of finite mathematics, including the study of sets, introductory symbolic logic, topics from the real number system, math of finance, introductory probability and basic algebra. Pre-requisites: MAT 090 and 095 or satisfactory placement test scores.

**MAT 151 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 161 (Calculus) may not take MAT 151 for credit except by special permission. Prerequisite: Satisfactory placement test scores or MAT 150. (F,Sp,Su)

**MAT 152 College Algebra and Trigonometry II****5-0-5**

A continuation of MAT 151. 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 151 or permission of instructor. (W,Sp,Su)

**MAT 153 Pre-Calculus****5-0-5**

An overview of algebraic concepts and an intense treatment of functions, including polynomial, rational, logarithmic, exponential, and trigonometric. A thorough study of analytic geometry and systems of equations is also included. This course is recommended for those students planning to take MAT 161. Credit cannot be given for MAT 153 and both MAT 151 and MAT 152.

**MAT 160 Calculus with Business Applications****5-0-5**

A course using the concepts of differentiation and integration placing particular emphasis upon their applications to solving problems that arise in business and economics. This course is designed primarily for business, economics, and social science majors and is not open to mathematics majors and cannot be used to satisfy the 10 hour math requirement. Prerequisite: MAT 152.

**MAT 161 Calculus and Analytic Geometry I****5-0-5**

A first course in calculus and analytic geometry. Topics include: functions, limits and continuity, the derivative, curve sketching and other applications of the derivative, anti-derivatives, and the definite integral. Prerequisite: MAT 152 or satisfactory placement test scores. (F,Sp)

**MAT 162 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 161. (F,W)

**MAT 163 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 and in space, polar coordinates, conic sections, parametric equations, indeterminate forms, and infinite series. Prerequisite: MAT 162. (Sp)

**MAT 170 Introductory Statistics** 5-0-5  
A course dealing with collecting, representing, analyzing, and interpreting data. Topics include: measures of central tendency and dispersion; an introduction to probability, permutations, and combinations; binomial and normal distributions; large and small sample theory and hypothesis testing; correlation and regression; and chi-square. Problems and applications from several disciplines are included. The course is especially recommended for students who plan to major in mathematics, science, medicine, psychology, sociology, and business administration. Prerequisite: MAT 151. (Sp,Su)

**MAT 261 Calculus and Analytic Geometry IV** 5-0-5  
A course in solid analytic geometry and multivariate calculus. Topics include: three-dimensional coordinates, vectors, directional derivatives, partial derivatives, quadratic surfaces, multiple integrals, line integrals, and differential equations. Prerequisite: MAT 163. (Su)

**MAT 265 Linear Algebra** 5-0-5  
A study of vectors, matrices and linear transformations including systems of linear equations and determinants. Prerequisite: MAT 163.

**MAT 270 Differential Equations** 5-0-5  
A study of the theory, methods of solution, and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics will include power series, Laplace transforms, linear systems, and numerical methods. Prerequisite: MAT 261.

**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 Measurements** 3-0-3  
A study of linear measurements, measuring devices, angles, perimeters, areas, volumes, and metric units. Prerequisite: Permission of advisor. (W)

**MAT 1123 Machinist Mathematics** 3-0-3  
Introduces gear ratios, 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.

## **MECHANICAL**

**MEC 101 Manufacturing Processes I** 3-9-6  
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 102 Manufacturing Processes II** 3-9-6  
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. Prerequisite: MEC 101

- MEC 103 Manufacturing Processes III** 3-9-6  
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. Prerequisite: MEC 102
- MEC 104 Manufacturing Processes IV** 3-9-6  
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 specified tolerances. Prerequisite: MEC 103
- MEC 110 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 112 Introduction to Manufacturing** 3-3-4  
A basic introduction to manufacturing, both the industry and the process used. A good understanding of various industries, tools, materials, processes and safety procedures is also necessary. Research and development, production planning, and industrial processes will also be covered.
- MEC 113 Numerical Control Principles** 3-3-4  
This course will acquaint students with the principles and applications of numerical control. The students will apply knowledge of blueprint reading, mathematics, and machining principles with programming code to develop N.C. programs for milling and turning projects in lab activities.
- MEC 117 Industrial Materials and Processes** 3-3-4  
This course is designed to introduce the student to the important engineering materials of industry and how they are processed. The student will receive broad understandings and concepts of the nature, processing, application, and testing of industrial materials such as metals, woods, plastics, and ceramics. Much emphasis will be placed upon problem solving and fundamental engineering applications.
- MEC 118 Introduction to Metals** 3-3-4  
This course is designed to familiarize the student with the different properties of ferrous and nonferrous metals. It provides a background for understanding the physical changes and chemical metallurgy for producing raw metal. It 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 also be explained.
- MEC 119 Applied Metallurgy** 3-3-4  
This course is intended to develop a working knowledge of the methods of treating ferrous and nonferrous metals. The effects of hardening, tempering, and annealing upon the structure and physical properties of metals will be studied. Trainees will be given the opportunity to acquaint themselves with the equipment and processes of heat treating.
- MEC 204 Applied Mechanics** 5-0-5  
The student will explore the principles of non-calculus based statics and applied mechanics. An overview of the classic areas of statics will be given to the student with applications in materials testing, materials selection, structural design, and machine design.

- MEC 205 Strength of Materials** 5-0-5  
The primary objectives of the course in strength of materials are to develop a working knowledge of the relations between loads applied to an elastic body and the resulting deformation of the body; to develop an understanding of the relations between the load applied and the stresses produced in the body; to develop an insight into the relations between stress and strain for a wide variety of conditions and materials; and to develop adequate procedures for finding the required dimensions of a member of a specific material to carry a given load subject to stated specifications of load and deflection.
- MEC 208 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 240 Computer Numerical Control Programming** 3-3-4  
Computer Numerical Control Programming is designed to teach students with numerical control skills how to develop part geometry and use computer software to write a CNC program. Using computers in programming CNC machines will greatly lessen programming time, eliminate many programming errors, enable programmers to simulate part machining on the computer to ensure accuracy and safety of machine moves, and provide fast and easy changes to the CNC program.
- MEC 1101 Machine Shop Theory and Practice I** 4-12-8  
An introduction to the metal working 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 II** 4-12-8  
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. Prerequisite: MEC 1101
- MEC 1103 Machine Shop Theory and Practice III** 4-12-8  
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. Prerequisite: MEC 1102
- MEC 1104 Machine Shop Theory and Practice IV** 4-12-8  
The student will work to required tolerances setting up and operating machine tools. An introduction to turret lathes, advanced miller 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 specified tolerances. Prerequisite: MEC 1103
- MEC 1112 Machine Shop Processes** 1-3-2  
This course acquaints the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations, hand grinding of drill bits and lathe tools, and set-up work applied to the trade are provided. Prerequisite: None.

**MEC 1140 Metallurgy for Welders****3-0-3**

The student will be introduced to the metals commonly used in industry with primary emphasis on steel and other iron-based metals. There will be a brief introduction to the fundamental structure of materials in general, including organic as well as inorganic substances. The production, forming, cutting, finishing, and heat treatment will be studied.

**MARKETING****MKT 119 Small Business Marketing & Sales Strategies****2-0-2**

This course is designed for a person already in a small business or those committed to starting one. The course will include developing practical marketing guidelines, conducting marketing research, learning basic elements of a sound sales approach and formulating sales campaigns.

**MKT 120 Marketing****3-0-3**

A general survey of the field of marketing, with a detailed study of the function, policies, and instructions involved in the marketing process. Emphasis on marketing management.(F)

**MKT 121 Retailing****3-0-3**

A study of the role of retailing in the economy including development of present retail structure, functions, performed, principles governing effective operation and managerial problems resulting from current economic and social trends.

**MKT 131 Small Business Sales Technique****2-0-2**

This course is designed for persons already in a small business or for those committed to starting one. The course covers contacting new prospects and expanding their sales network, learning techniques to identify the needs and wants of potential customers, and learning methods to ensure future sales and referrals.

**MKT 132 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 an execution of sales demonstration required. (Sp)

**MKT 210 Advertising, Sales & Promotion****3-2-4**

A study of the various aspects of advertising with heavy emphasis on the broadcast and cable industries. An examination of up-to-date professional selling methods, plus techniques based on theoretical research in the behavioral sciences and sales performance.

**MKT 243 Advertising****3-0-3**

The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals, product and market research, selection of media, means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media. (W)

**MKT 249 Buying and Merchandising****3-0-3**

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.

**MKT 260 Commercial Display and Design****2-3-3**

Internal- An introduction to basic layout and design and commercial displays, retail store, and service institutions.



## APPLIED MUSIC

APPLIED MUSIC is the term given to the study of an instrument. The student may choose to study as his principal instrument Voice, Piano, Brass, Woodwind, Percussion, or Organ, depending upon prior experience or musical aptitude as shown in his/her audition. Each music major is required to accumulate 12 credit hours of Applied Music for graduation. A student may choose a secondary instrument for which a total of 6 credit hours may be earned.

APPLIED MUSIC: For Music Majors and advanced students. Audition is required before registering. Classes are self-supporting; additional fees are required. One hour lesson per week (TBA): 2 credit hours.

- MUA 110, 111, 112 - Applied Voice (Major-Principal) I, II, III
- MUA 210, 211, 212 - Advanced Applied Voice (Major-Principal) IV, V, VI
- MUA 120, 121, 122 - Applied Piano (Major-Principal), I, II, III
- MUA 220, 221, 222 - Advanced Applied Piano (Major-Principal) IV, V, VI
- MUA 130, 131, 132 - Applied Brass (Major-Principal) I, II, III
- MUA 230, 231, 232 - Advanced Applied Brass (Major-Principal) IV, V, VI
- MUA 140, 141, 142 - Applied Woodwind (Major-Principal) I, II, III
- MUA 240, 241, 242 - Advanced Applied Woodwind (Major-Principal) IV, V, VI
- MUA 150, 151, 152 - Applied Percussion (Major-Principal) I, II, III
- MUA 250, 251, 152 - Advanced Applied Percussion (Major-Principal) IV, V, VI
- MUA 160, 161, 162 - Applied Organ (Major-Principal) I, II, III
- MUA 260, 261, 162 - Advanced Applied Organ (Major-Principal) IV, V, VI
- MUA 170, 171, 172 - Applied Guitar (Major-Principal) I, II, III
- MUA 270, 271, 272 - Advanced Applied Guitar (Major-Principal) IV, V, VI

APPLIED MUSIC: For non-majors or study in secondary instruments. Audition is required before registering. Classes are self-supporting; additional fees are required. One 1/2 hour lesson per week (TBA): 1 credit hour.

- MUA 113, 114, 115 - Applied Voice (Secondary) I, II, III
- MUA 213, 214, 215 - Advanced Applied Voice (Secondary) IV, V, VI
- MUA 123, 124, 125 - Applied Piano (Secondary) I, II, III
- MUA 223, 224, 225 - Advanced Applied Piano (Secondary) IV, V, VI
- MUA 133, 134, 135 - Applied Brass (Secondary) I, II, III
- MUA 233, 234, 235 - Advanced Applied Brass (Secondary) IV, V, VI
- MUA 143, 144, 145 - Applied Woodwind (Secondary) I, II, III
- MUA 243, 244, 245 - Advanced Applied Woodwind (Secondary) IV, V, VI
- MUA 153, 154, 155 - Applied Percussion (Secondary) I, II, III
- MUA 253, 254, 255 - Advanced Applied Percussion (Secondary) IV, V, VI
- MUA 163, 164, 165 - Applied Organ (Secondary) I, II, III
- MUA 263, 264, 265 - Advanced Applied Organ (Secondary) IV, V, VI

## MUSIC

### **MUS 151 Introduction to Music History I 3-0-3**

A course which introduces the student to the materials of music, music terminology, the make-up of an orchestra, and forms and styles of music. It will focus on master works through the Baroque Period. Listening is emphasized.

### **MUS 152 Introduction to Music History II 3-0-3**

A continuation of MUS 151. This course will focus on forms and styles of master works from the Classical, Romantic, and Modern Periods. Listening is emphasized.

### **MUS 160 Music Theory I 3-2-4**

An introduction to the basic concepts of music theory and the materials of music: aural, analytical, vocal, and keyboard applications. Lecture 3, Lab (sight singing and ear training)2.

**MUS 161 Music Theory II** 3-2-4  
Expansion of materials in MUS 160 with emphasis on part-writing. Prerequisite: MUS 160 or permission of instructor. Lecture 3, Lab 2.

**MUS 162 Music Theory III** 3-2-4  
Expansion of materials in MUS 161 with emphasis on dominant seventh chord, modulation, and secondary dominant chords. Prerequisite: MUS 161, or permission of instructor.

**MUS 170 Chorus** 0-3-1(each)  
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 may be taken 6 quarters for credit. No auditions are required.

**MUS 173 Class Piano I** 0-3-1  
The student participating in Class Piano I will, at its conclusion, be able to demonstrate mastery of the repertoire and written assignments in Units I through IV of The Older Beginner Piano Course Level I. The student will also be responsible for supplementary repertoire chosen by the student with instructor approval. Mastery of these assignments must be demonstrated on tests which will be administered at regular intervals (including written work and piano performance), which must be passed before the student proceeds to the following levels. Each student will proceed at his own rate. Open to all students.

**MUS 174 Class Piano II** 0-3-1  
The student participating in Class Piano II will, at its conclusion, be able to demonstrate mastery of the repertoire and written assignments, Units VI through X in The Older Beginner Piano Course Level I. The student will also be responsible for supplementary repertoire chosen by the student with instructor approval. Mastery of these assignments must be demonstrated on tests which will be administered at regular intervals (including written work and piano performance), which must be passed before the student proceeds to the following levels. Each student will proceed at his own rate. Prerequisite: Successful completion of Class Piano I or the approval of the instructor based on written tests and performance skills.

**MUS 175 Class Piano III** 0-3-1  
The student participating in Class Piano III will, at its conclusion, be able to demonstrate mastery of the repertoire and written assignments in Units I through VII in The Older Beginner Piano Course Level II. The student will also be responsible for supplementary repertoire chosen by the student with instructor approval. Mastery of these assignments must be demonstrated on tests which will be administered at regular intervals (including written work and piano performance), which must be passed before the student proceeds to the following levels. Each student will proceed at his own rate. Prerequisite: Successful completion of Class Piano I and II, or the approval of the instructor based on written tests and performance skills.

**MUS 176 Class Piano IV** 0-3-1  
The student participating in Class Piano IV will, at its conclusion, be able to demonstrate mastery of the repertoire and written assignments in Units VIII through X in The Older Beginner Piano Course Level II, plus all the Major Scales and Supplementary Repertoire in the text. The student will also be responsible for other supplementary repertoire chosen by the student with instructor approval. Mastery of these assignments must be demonstrated on tests which will be administered at regular intervals (including written work and piano performance), which must be passed before the student proceeds to the following levels. Each student will proceed at his own rate. Prerequisite: Successful completion of Class Piano I, II, and III, or the approval of the instructor based on written tests and performance skills.

- MUS 177, 178, 179 Class Voice I, II, III** **0-3-1 (each)**  
Elementary courses in singing in which both group and individual techniques are employed. Emphasis is on the study of voice production and principles of singing.
- MUS 181 Music Appreciation** **3-0-5**  
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 Contemporary Period are studied and compared by lectures and aural analysis. Listening is emphasized. Open to all students.
- MUS 182 Jazz Appreciation** **3-0-3**  
This course is designed to give the student new insights and general knowledge of the historical evolution of jazz in the United States and of all jazz styles. Listening will be emphasized. This course does not require previous musical training.
- MUS 183 Intro to Conducting** **3-0-3**  
This course is an introduction to choral direction, focusing on basic techniques in conducting and training choral groups. It includes conducting in a variety of musical styles, improving vocal technique, and teaching sight reading and music theory to your choral group.
- MUS 184 Opera Workshop** **0-3-1**  
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 services 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. This course may be taken 2 quarters for credit.
- MUS 185 Chamber Singers** **0-3-1**  
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. This course may be taken 2 quarters for credit.
- MUS 186 Stage Band** **0-3-1**  
This course is designed to provide basic experience in the performance of stage band literature. Instrumentation is flexible, but includes alto sax, tenor sax, baritone sax, trumpets, trombones, and rhythm. Jazz, swing, blues, and contemporary styles will also be introduced. Proficiency in playing an appropriate instrument is required. This course may be taken 6 quarters for credit.
- MUS 187 Show Choir** **0-3-1**  
Show choir is a performing group by audition and/or invitation only, as class size is limited. Singing, choreography, and costumes are involved. This course may be taken 6 quarters for credit.
- MUS 188 Gospel Choir** **0-3-1**  
This course will survey the Afro-American cultural and musical heritage. Major emphasis will be placed on music of the gospel style.
- MUS 190 Special Approaches to Music** **0-3-1**  
This ensemble course will deal with timely or special interests in music. Specific approaches will vary depending on the talents and interests of students and faculty.
- MUS 273 Advanced Class Piano** **0-3-1**  
In an electronic piano laboratory setting, students will receive group and individual instruction. Repertoire will include solo, duet, and ensemble compositions. Prerequisite: Class Piano I-IV or equivalent.

## NURSING

### **NUR 100 Nursing Role Transition 3-2-0-4**

This course is designed to facilitate the entry of advanced placement students into the fourth quarter of the Foothills Nursing Consortium Associate Degree program. The program's objectives and the legal roles and responsibilities of registered nurses will be presented. Theory and skills will be supplemented to equate the level of competency of the generic student. The course must be repeated every three years.

Prerequisite: Criteria met for Advanced Placement (on demand)

### **NUR 101 Basic Concepts in Nursing 6-4-3-9**

Basic Nursing is a foundational course which provides the opportunity for students to explore basic principles, the nursing process, and the nurse-patient relationship. Units are included on the nurse's role in meeting individual needs for comfort, cleanliness, rest, activity, and safety.

Prerequisite: Admission to Program.

Corequisite: NUR 102, NUT 160, and BIO 270

### **NUR 102 Pharmacological Concepts in Nursing 3-0-0-3**

A study of principles utilized in the administration of medications. Students must pass a mathematics and calculation competency examination to successfully pass the course. Major classifications of drugs are introduced as a basis for continued study of pharmacology. The role of the nurse in Pharmacology is presented with emphasis on the nursing process.

Prerequisite: Admission to program

Corequisite: NUR 101

### **NUR 103 Nursing Care of Adults I 4-2-12-9**

The course focuses on the adult experiencing common health needs. The focus of prevention and psycho-physiotherapy in health and illness is studied. The nursing process and needs theory serve to guide the student's course of study with emphasis on the related roles of the ADN nurse.

Prerequisite: NUR 101, NUR 102, NUT 160

Corequisite: BIO 271, PSY 260

### **NUR 104 Nursing Care of Adults II 4-0-12-8**

The course is a continued study of the adult experiencing selected health needs with increasing acuity. The focus of prevention, psychophysiotherapy, nursing process and ADN roles are utilized to guide the course of study.

Prerequisite: NUR 103

Corequisite: BIO 272, PSY 261

### **NUR 105 Mental Health Nursing 5-0-12-9**

A study of the person experiencing altered patterns of psychosocial behavior. Major focus is upon appropriate nursing roles, psychotherapeutic modalities and the formation of therapeutic relationships. The theory of needs and the nursing process are emphasized.

Prerequisite: NUR 104, PSY 261

Corequisite: None

### **NUR 201 Nursing Care of Older Adults 4-0-12-8**

The course provides an opportunity to utilize the manager of care role in meeting the needs of the older adult in long-term care, and community settings. Special emphasis will be placed on the aging process as it applies to developmental changes and pathological alterations commonly occurring in the older adult. The nursing process with principles of prevention and rehabilitation are emphasized.

Prerequisite: NUR 105

Corequisite: SOC 160



- NUR 202 Nursing Care of the Childbearing Family** 5-0-12-9  
The provider of care role is utilized in caring for the mother, infant, and family during the normal and high-risk childbearing cycle using the nursing process, and needs approach.  
Prerequisite: NUR 201, SOC 160, BIO 280  
Corequisite: None
- NUR 203 Nursing Care of Children** 5-0-12-9  
A study of the health care of children utilizing a needs theory, the nursing process, the nursing roles, and principles of growth and development. Both health maintenance and care of the ill child are emphasized. Consideration is given to the child within their family unit.  
Prerequisite: NUR 202, SOC 160  
Corequisite: None
- NUR 204 Nursing Care of Adult III** 5-0-15-10  
Health care needs of the adult experiencing complex multi-system disorders or critical illness, provides the learner with the opportunity for implementation of the nursing process. The ADN roles in a variety of acute structured settings will be studied with emphasis on manager of care.  
Prerequisite: NUR 203  
Corequisite: NUR 205
- NUR 205 Nursing Perspectives and Issues** 3-0-0-3  
The course focus is on the member within the discipline of nursing role. Selected events, legal and ethical aspects, trends, issues and responsibilities related to the practice of nursing are addressed. Emphasis is upon concepts designed to aid in the transition from nursing student to registered nurse. A seminar approach is utilized.  
Prerequisite: NUR 203  
Corequisite: NUR 204
- NUR 1101 Nursing Fundamentals** 6-4-3-9  
An introduction to basic nursing principles and practices underlying safe nursing care. Emphases are on concepts of holistic health care; therapeutic communications; mental health concepts; safe, comfortable and therapeutic environments; competent performance of basic nursing skills; legal and ethical responsibility; historical development, accountability and liability of the practical nurse in the health care system. Utilization of the nursing process as the problem-solving strategy for nursing is emphasized.  
Corequisite: NUR 1105, BIO 270, and NUR 1109
- NUR 1102 Med-Surg I** 9-0-12-13  
NUR 1102 Med-Surg I is designed to provide a beginning knowledge of health problems necessitating medical or surgical intervention and the development of plans for nursing care management. The LPN identifies the physiological, psychological and sociological factors that affect the health status of the adult.  
Prerequisite: NUR 1101, NUR 1105, NUR 1109, BIO 270  
Corequisite: BIO 271, NUR 1107, PSY 260
- NUR 1103 Maternity Nursing** 5-0-9-8  
A study of nursing care problems presented during the normal and complicated childbearing maternity cycle with emphasis on the normal cycle. The student will develop the basic concepts of maternity care so that the highest level of health possible for every child bearing family may be achieved in the broader sense of physical, emotional and social well-being. Emphasis is placed on basic nursing skills in the period of gestation, labor, delivery, and post partum nursing care of the normal newborn and care of infants with special needs or disorders will be studied.  
Prerequisite: NUR 1104, BIO 272, and PSY 261  
Corequisite: NUR 1108



**NUR 1104 Med-Surg II****8-0-1B-14**

This course is designed to develop knowledge in the area of the care of the seriously ill patients. Emphasis is given to continued development of knowledge, principles and nursing care at the LPN level for patients having complex medical surgical conditions which may result in alterations in body homeostasis.

Prerequisite: NUR 1102, NUR 1107, BIO 271, and PSY 260

Corequisite: BIO 272 and PSY 261

**NUR 1105 Pharmacology I****3-0-0-3**

A basic pharmacology course to enable the student to calculate drug dosages develop basic knowledge of the history of pharmacology, and identify the actions of drugs in the body. The course includes a mathematics review, a study of the systems of measurement, calculation of oral medications, calculation of parenteral medication, calculation of pediatric medication, introduction and history of pharmacology, actions of drugs in the body, classifications overview and a look at cardiovascular and respiratory medications. Corequisite: NUR 1101

**NUR 1107 Pharmacology II****1-0-0-1**

A study of medications and their administration. Emphasis is on laws concerning drug standards and dispensing, the classifications, the routes, and the effects of administration of medications given for therapeutic purposes. Developing a knowledge base necessary for safe and effective administration of medications within the legal role for the practical nurse is also emphasized.

Prerequisite: NUR 1105

**NUR 1108 Pediatrics****5-0-9-8**

Differences between diseased children and adults, basics of child growth and development, common diseases of infants, children, and adolescents, and their related nursing care.

Prerequisite: NUR 1104, BIO 272, and PSY 261

Corequisite: NUR 1103

**NUR 1109 Nutrition****3-0-0-3**

A study of normal nutrition and diet therapy including the study of nutrients, how they are used by the body, and sources and types of foods necessary for a balanced diet in developmental and ethnic variations; and physiological processes of digestion, absorption, and metabolism. Hospital diets commonly used for selected disorders and principles of meal planning to meet nutritional requirements for all age groups are also studied.

**NUTRITION****NUT 160 Basic Nutrition****3-0-3**

A study of the basic dietary needs of man including the study of nutrients, digestion, absorption, and metabolism, as well as contemporary issues on nutrition and food preservation. (W)

**ORIENTATION****ORI 100 Student Orientation Seminar****1-0-1**

This course is required of all full-time technical and college transfer students enrolling for the first time. It is designed to assist you in developing an attitude which will help you appreciate the value of higher education, point the way to college resources that will allow you to develop to your fullest potential, and thereby enable you to survive your college experience. (This course is not required for students with advanced academic standing.)

**ORI 164 Textbook Reading and Study Skills** 3-0-3  
This course teaches a variety of reading, learning and study strategies to the student who wishes to get the most from the college experience. Recognition is given to the fact that what a student does before and after reading is as important as the actual reading. Study strategies are formatted to make optimum use of the student's potential for understanding and retention of information. The context of this course is based on current research and theory in the field of reading and study skills.

## OFFICE SCIENCE

**OSC 101 Keyboarding/Document Formatting I** 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,W,Sp,Su)

**OSC 102 Document Formatting II** 3-2-4  
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: OSC 101 or proof of competency on a typewriting placement test. (F,W,Sp,Su)

**OSC 103 Document Formatting III** 3-2-4  
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 readable copies. The production units are tabulation, manuscripts, business letters, memos, telegrams, and legal documents. 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: OSC 102. (F,W,Sp,Su)

**OSC 108 Records Management** 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)

**OSC 109 Transcription Skills** 3-2-4  
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. (Sp,Su)

**OSC 165 Word Processing Applications** 3-2-4  
This course is designed to increase efficiency and productivity while using a word processing software package. Prerequisite: CAS 163-Word Perfect.

**OSC 204 Stenocript** 3-2-4  
A course offering the theory and practice of ABC Shorthand. Emphasis on speed in taking dictation as well as accuracy in transcription. Minimum dictation rate of 60 words a minute required. (F,W,Sp,Su)

- OSC 205 Machine Transcription** 3-2-4  
 Course offers the opportunity for students 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. Prerequisites: OSC 109 and OSC 103 or the ability to type 50 w.p.m. with no more than 5 errors. (F,W,Sp,Su)
- OSC 206 Medical Terminology** 3-0-3  
 This is designed to teach the student the meanings of 350 Latin and Greek elements, or word parts. The knowledge of the 350 elements will enable the student to interpret and understand more than ten thousand medical terms. (F,W,Sp,Su)
- OSC 207 Medical Vocabulary/Anatomy** 3-0-3  
 This course is designed to teach basic human anatomy for the medical secretary or the medical records clerk. The student will learn to pronounce, spell, identify, and locate parts of the human anatomy. (F,W,Sp,Su)
- OSC 208 Medical Transcription** 3-2-4  
 A course in which the student transcribes from cassette dictation medical reports, letters, etc., dealing with the various branches of medicine. Prerequisites: OSC 102, OSC 109, OSC 206. (F,W,Sp,Su)
- OSC 213 Secretarial Administration** 3-0-3  
 A course designed to acquaint students with practical applications of secretarial responsibilities. These duties include receptionist duties, mail handling, telephone technique, travel information, telegrams, office records, supplies purchasing, office organizations, and time management. Prerequisite: OSC 103. (Sp)
- OSC 219 Legal Terminology** 3-0-3  
 Student learns legal terminology and procedures related to 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)
- OSC 220 Legal Transcription** 3-2-4  
 Student acquires employable skills in transcribing dictation of legal instruments and documents. Prerequisites: OSC 102, OSC 109, OSC 219. (F,W,Sp,Su)

## PHYSICAL EDUCATION

\*Note: Non-Credit recreational activity classes are offered on a self-supporting basis. Consult current class schedules for non-credit activity class schedules.

- PED 150 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.
- PED 151 Physical Fitness** 0-3-1  
 A course of instruction designed to develop and maintain the following components of physical fitness: cardiovascular endurance, muscular endurance, strength, body composition, and flexibility. Individuals begin and progress at a rate suited to their present fitness level and personal needs.
- PED 152 Aerobic Dance** 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 of diet, weight loss, and posture.

- PED 153 Low Impact Aerobics** **0-3-1**  
 An easy-on-the-joints approach to cardiovascular conditioning. Adaptable for beginning through advanced level students. This class also includes exercises to increase strength and flexibility.
- PED 154 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.
- PED 155 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 and cardiovascular endurance exercise through swimming.
- PED 156 Water Aerobics** **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 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, and other conditions, as exercise in the water reduces the overall stress on the body during exercise.
- PED 160 Beginning Swimming** **0-3-1**  
 This course is designed for the adult non-swimmer. It is recommended for those who have a fear of water, have had previous difficulty in learning to swim, have never tried, or have hesitated to take a course for other reasons. Individuals 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.
- PED 161 Intermediate Swimming** **0-3-1**  
 A course designed to increase the individual's adjustment to the aquatic environment by adding to skills learned at the beginner level. Primary emphasis in the course is placed on developing relaxation, stamina, and basic coordination in fundamental swimming skills. Not recommended for the non-swimmer. Prerequisite: PED 0130 and/or the ability to jump into deep water, swim the crawl stroke a distance of 20 yards; swim a minimum of 10 yards on the back, and float on the back a minimum of 15 seconds.
- PED 162 Swimming Techniques** **0-1-3**  
 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 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.
- PED 163 Emergency Water Safety** **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. American Red Cross certification is obtainable through this course of instruction. Prerequisites: Intermediate Swimming and Basic Water Safety Certification or pass equivalent swim and safety skills tests.

- PED 164 Lifeguard Training** **0-3-1**  
 A course of instruction designed to provide the necessary minimum skills training for a person to serve as a non-surf lifeguard. Prerequisites: (1) swim 500 yards continuously, (2) surface dive to 9 ft. and retrieve a 10 lb weight and bring it to the surface, (3) surface dive to 5 ft. and swim 15 yds under water, (4) tread water for 1 minute, (5) have, or earn prior to course completion, American Red Cross Certification in the new Standard First Aid or show current documentation of equivalent training. American Red Cross Certification is available through this course of instruction.
- PED 165 Water Safety Instruction Training** **0-3-1**  
 A course of instruction leading to certification as an American Red Cross Water Safety Instructor. Prerequisite: Current Advanced Lifesaving Certification. (Sp)
- PED 168 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. Prerequisites: Swim 200 yards; tread water for 5 minutes; surface dive to a depth of 9 feet. (F,Sp,Su)
- PED 170 Archery** **0-3-1**  
 Introduces the student to a versatile and exciting lifetime sport. Because of its few restrictions, archery can be performed by both sexes and is adaptable to the individual's physical capabilities. Included in the course are history, nature of the sport, fundamental skills, safety, competitive shooting and scoring.
- PED 171 Bowling** **0-3-1**  
 A course of instruction designed to introduce the student to the fundamental skills and knowledge of the game. Includes instruction in rules, scoring, equipment, etiquette, and game playing experience.
- PED 172 Beginning Golf** **0-3-1**  
 A course designed to develop and strengthen skill in the basic fundamentals of the game. Includes discussion of rules, equipment, playing strategy and etiquette. Not recommended for players of advanced ability.
- PED 174 Karate I (Japanese Shotokan)** **0-3-1**  
 An introduction to the martial arts utilizing Japanese form referred to as Shotokan. Emphasis will be placed on proper conditioning, exercise, and body control relating to the fundamentals of self-defense. Attention will be given to Japanese terminology, including a historical overview of its foundation, ranks, promotion, and proper etiquette.
- PED 176 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.
- PED 178 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.
- PED 180 Backpacking** **0-3-1**  
 A unique and innovative course for those who enjoy the out-of-doors. The course is designed to acquaint you with the various aspects of backpacking, to investigate the many facets of the subject and to make you feel qualified to participate in, and discuss, backpacking. This course includes field experience in a wilderness area.



- PED 182 Basic Rock Climbing** 0-3-1  
A beginning course designed to teach the fundamental skills, knowledge of equipment, and safety of rock climbing. Practical application of skills and knowledge is achieved through an actual climb at a suitable location.
- PED 184 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.
- PED 185 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 a suitable river location. Prerequisite: Ability to swim and stay afloat in deep water for five minutes fully clothed.
- PED 188 Basic Sailing** 0-3-1  
A course of instruction in the safe and correct handling of small sailing craft. (Sp)
- PED 186 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-four day field experience. Prerequisite: Ability to swim and stay afloat in deep water for five minutes fully clothed.
- PED 190 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.
- PED 191 Sports and Games** 0-3-1  
A course of instruction designed to provide a variety of sports and recreational games. The course includes racquet sports, team sports, individual sports, and recreational activities and games.
- PED 192 Clogging** 0-3-1  
A course designed to teach various types of positions, formations, steps, and identifiable characteristics of clogging.
- PED 242 Physical Activities for Children** 2-3-3  
This course focuses on the components of the early childhood curriculum. Topics include the importance of play in the early childhood environment, developmentally appropriate environments, and various types of early childhood programs/curricula.
- PED 250/251 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.

## PHILOSOPHY

### **PHI 260 Introduction to Philosophy** 5-0-5

An introduction to philosophy. This course will introduce the student both to the subject of philosophy and to the art of philosophy. In so doing, the student will study the great issues and the great persons whose work is the corpus of philosophy. Readings in the great issues will supplement the textbook.

### **PHI 261 Introduction to Logic** 5-0-5

An introduction to critical thinking. This course will introduce the student to the principles of formal and informal reasoning, fallacies, extended reasoning, and the relationship between and among beliefs, information, language, and values, and their effects on reasoning.

### **PHI 262 Problems in Philosophy** 5-0-5

An advanced study of philosophy. The subject matter of this course will range from classical to current issues in philosophy. New subject matter will be added at the discretion of the instructor if it is timely or of special interest. Prerequisite: PHI 0260 or PHI 0261.

## PHOTOGRAPHY

### **PHO 121 Introduction to Photography I** 2-6-4

An introduction to basic photography skills, appreciation of black-and-white photography, developing black-and-white films, and making enlargements from black-and-white 35mm negatives.

### **PHO 122 Photography II** 2-6-4

This class will introduce advanced photography skills such as time exposure and panning, the use of flash, how to do copy work, and the use of infrared film. Students will learn how to select the best film for the job and how to properly present their prints. Prerequisite: PHO 121 or permission from the instructor

### **PHO 123 Photography III** 2-6-4

An introduction to color photography with emphasis on color positives, processing of color positives and cibachrome printing processing. Prerequisite: PHO 121, 122, or permission from the instructor

## PHYSICAL SCIENCE

### **PHS 151, 152, 153 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 of atoms. The role of science in the development of civilization is emphasized. Three laboratory hours per week.

### **PHS 160 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 source of the busy teacher. Such areas as air, water, magnetism, gravity, simple machines, sound, light, electricity, rocks-minerals, and plant and animal life will be considered.

**PHS 170 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 100 Principles of Technology** 3-3-4  
Principles of Technology is a course in applied physics for students who plan to pursue careers as technicians. This course is designed to help students understand modern, interdisciplinary systems where mechanical, fluid, electrical, and thermal devices often work together.

**PHY 101, 102 Technical Physics I, II** 3-3-4  
Technical Physics introduces physics in a practical sense. Topics covered include force, work and rate. The topics are covered from mechanical, electrical, fluidal, and thermal references giving the student a broad background in basic physics.

**PHY 151 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 system. 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 enrolled in MAT 151 or higher. (F)

**PHY 152 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 151. (W)

**PHY 153 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 152. (Sp)

**PHY 160 Descriptive Astronomy** 2-2-3  
This course will study the structure, mechanics, and observation of the solar system, stars and nebulae. (W)

**PHY 251, 252, 253 are calculus level courses for engineering and science majors.**

**PHY 251 Analytical Physics I** 3-3-4  
This is a quantitative treatment of Newtonian mechanics, covering different motions of bodies, vectors, work, energy and power. Prerequisites: MAT 161, 162. (F)

**PHY 252 Analytical Physics II** 3-3-4  
A Continuation of physics with emphasis upon the study of thermodynamics, sound and optics. Prerequisite: PHY 251. (W)

**PHY 253 Analytical Physics III** 3-3-4  
Electricity, magnetism and nuclear physics will be the major topics of study. Prerequisite: PHY 252. (Sp)

## PLASTICS

- PLA 220 Introduction to Plastics** 3-0-3  
A basic introduction to industrial plastics concerning both thermosets and thermoplastics. The descriptions, classification, and properties of various plastics will be covered. Plastics testing and polymer chemistry will also be included in the first quarter.
- PLA 221 Plastics Materials and Processes** 3-3-4  
A study of the plastics industry to include various products and manufacturing processes. Processes include extension, blow molding, thermoforming, roll forming, casting and thermofusion. Prerequisite: PLA 220
- PLA 222 Injection Molding** 3-3-4  
A concentration of the injection molding process. Topics include industrial equipment, materials, mold design and troubleshooting. Lab activities will include setup and operation of a modern injection molding machine. Prerequisite: PLA 221
- PLA 223 Mold Maintenance and Repair** 3-3-4  
An in-depth study of the principles of the design, maintenance, and repair of molds used in the plastics industry. The class will consist of both lecture and laboratory experiences covering mold materials, assembly, cleaning, and repair. Special attention will be given to mold fill problems and troubleshooting. Prerequisite: PLA 222
- PLA 224 Polymers** 3-0-3  
This course is designed to provide the student with further study in the area of polymeric materials. Special emphasis will be placed upon the hierarchy of plastics, from commodity grade to advanced grade thermoplastics, to all grades of thermosets. Advanced polymer chemistry and principles of elastomers will also be covered during the course. Prerequisites: PLA 220 and PLA 221

## POLITICAL SCIENCE

- POL 261 Introduction to American Politics** 5-0-5  
A study of the role of the President, Congress, Supreme Court and national administrative agencies in the American political system. The course focuses on the relationship between the American people and their political institutions with emphasis upon political culture, the electoral process, political parties, interest groups, domestic and foreign policy and political communication. Pre-requisite: satisfactory placement test scores in reading and English composition or completion of RED 090 and ENG 090.
- POL 262 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 with major emphases on the comparison of various basic state governments to North Carolina and local governments to Rutherford County. Pre-requisite: satisfactory placement test scores in reading and English composition or completion of RED 090 and ENG 090.
- POL 263 Special Topics in Political Science** variable  
This course will be concerned with special timely topics that occur in the political science area of study.

## PSYCHOLOGY

- PSY 115 Child Growth and Development I** 3-0-3  
This course is an introduction to the field of child growth and development. Specific topics will include historical perspectives on children, research and observation techniques, terminology, and the areas of growth and development. Emphasis will be placed on conception, prenatal development, the birth process and the neonate.

**PSY 116 Child Growth and Development II** 3-0-3  
This course examines the growth and development of infants through early childhood. Specific emphasis will be placed on factors influencing development in the physical/motor, cognitive/language, and social/emotional areas. Prerequisite: PSY 115

**PSY 117 Child Growth and Development III** 3-0-3  
This course examines the growth and development of middle childhood and adolescence. Specific emphasis will be placed on factors influencing development in the physical/motor, cognitive/language, and social/emotional areas. Prerequisite: PSY 116

**PSY 260 General Psychology** 5-0-5  
This course is designed to acquaint the student with the various aspects of psychology at the introductory level. It is a survey of psychology dealing predominantly with material that enhances a study of the bio-social nature of humankind. Topics range from a study of the bio/chemical structure of the brain and nervous system to the underlying causes of abnormal behavior.

**PSY 261 Developmental Psychology** 3-0-3  
The course is designed to acquaint the student with the developmental sequence of human growth which will include the essential elements involved in the study of prenatal and infant time periods. A study of the characteristic behavioral growth patterns from the preschool child through adolescence and adulthood will also be emphasized. Considerations will be given to individual differences, perceptualizations, cognition and physical growth. The social, emotional, and attitudinal aspects from within these areas of development will be stressed as part of this study. (W)

**PSY 262 Introduction to Applied Psychology** 3-0-3  
This course explores the field of psychology with reference to its application in human affairs. Applied Psychology focuses upon the transferral of theoretical concepts from a research emphasis in psychology to aspects of practical application. Topics cover such diverse areas as artificial intelligence and brain studies of whales and dolphins emphasizing the realistic usage of all data studied.

**PSY 263 Abnormal Psychology** 3-0-3  
The course traces the development of recognized psychological abnormalities from early Greek references to personality disturbances through the era of "High Tech" disorder therapy. Models of abnormal behavior, syndromes of abnormal behavior and perspectives on schizophrenia will be examined along with the major sub-structures within each. The societal response to abnormal behavior, as well as modern psychotherapeutic techniques, form the basis for further in-depth study into the nature of pathological phenomena. (Sp)

**PSY 1100 Human Relations** 3-0-3  
This course is designed to enable students to better understand the basic principles of behavior. The human relations problems of the individual are studied in relation to society, group memberships, and relationships within the work situation.

## READING

**RED 085 Basic Reading** 2-3-3\*  
The Basic Reading course is designed for students who are not able to read (decode) longer words with the speed and accuracy needed for success in RED 0090. Students will develop a strong sound/sound relationship (phonics) using a structured multi-sensory approach. As such, this course will be beneficial to those students who have a spelling deficiency. Knowledge of syllable types further aids the student in decoding and spelling longer words. Vocabulary studies, comprehension skills, and discussion complete the curriculum.



**RED 090 Reading Proficiency** 2-3-3\*  
Reading Proficiency provides the opportunity for students to acquire the reading skills that will be necessary for successful completion of college transfer, business, technical, and vocational programs. The course includes vocabulary instruction, reading comprehension, and critical thinking studies, as well as study skills that relate particularly to reading (pre-reading activities, summary writing, annotation, preparation for testing, and activities intended to improve the memory for information). This is largely an interactive class in which the particular needs of individual students receive careful attention.

\*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification for a full-time student.

**RED 260 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/her ability to comprehend rapidly and retain concepts.

## RELIGION

**REL 160 Introduction to the Old Testament** 5-0-5  
A survey of the Old Testament. Emphasis will be placed on the content of the Old Testament, as well as on its background and development. (F)

**REL 161 Introduction to the New Testament** 5-0-5  
A survey of the New Testament. After an introduction to the Interbiblical Period, emphasis will be placed on the content of the New Testament, as well as on its background and development. (W)

**REL 162 World Religions** 5-0-5  
A survey and comparison of the origins, developments, beliefs, and practices of the major faiths. Pre-requisites: ENG 090 or satisfactory placement test scores. (Sp)

**REL 170 History of Christianity** 5-0-5  
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 denominations. Pre-requisites: ENG 090 or satisfactory placement scores.

**REL 180 Special Topics** 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 topics which may be offered under this description. (On demand)

## REAL ESTATE

**RLS 121 Real Estate Math** 3-0-3  
A review of formulas for calculating the areas 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. (F,Sp)

**RLS 122 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. (W)

- RLS 230 Real Estate Fundamentals** 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 requirement for Sales examination and partial requirement for Brokerage examination. (F,Sp)
- RLS 231 Real Estate Finance** 3-0-3  
 A study of financing instruments and financial intermediaries, government insurance, guarantees, controls, appraisals, and the processing of loans. Borrowing for the purpose of investing in income properties and investment techniques are included. (W)
- RLS 238 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. (W)

## **RADIO AND TELEVISION BROADCASTING**

- RTV 116 Broadcasting Announcing** 3-3-4  
 This course provides a study of the announcer's function, skills, characteristics, and techniques. Emphasis is placed on the analysis, interpretation, and communication of various types of announcing-performance projects. The course is also designed to familiarize the student with basic broadcast studio equipment and broadcast procedures.
- RTV 201 Introduction to Broadcasting** 5-0-5  
 A survey course of radio and television broadcasting including history and development; station organization and procedures; and a practical introduction to the fundamentals of industry.
- RTV 203 Expression in the Media** 5-0-5  
 An introduction to communication theory including the study of expressing oneself clearly and accurately as a mass media communicator. Basic communication skills that are important for any person involved in mass media communication. Communication has an immeasurable impact upon one's life. Broad exposure to a variety of speech experiences develops skills which are basic to higher education and human interaction. Critical listening, logic, organization, and speaking skills are emphasized.
- RTV 204 Audio Production I** 3-B-7  
 A two part course that deals with the "Ground Floor" basics of audio. Part I deals with the physical behavior and perceptual effects of sound. Part II focuses on Broadcast and Recording equipment and its innerworkings.
- RTV 205 Broadcast Programming** 3-0-3  
 Trends and requirements of broadcast programming. An analysis of community program needs and tastes, station image. Programming points of view of television, radio, cable, and public broadcasting.
- RTV 206 Writing for Broadcasting** 3-2-4  
 This course examines proper techniques and formats of writing scripts and copies for the radio and television media. Students will strive for professional standards of broadcast copy writing in the completion of a variety of writing projects. Prerequisite: OSC 101
- RTV 207 Video Production I** 3-B-7  
 Most video today is in education, industry, small-scale studios, and production shops, so students must learn to do production single-handedly. Students will apply their knowledge of television systems. They will focus on the theory, aesthetics, and terminology of producing and directing video programs. Prerequisite: RTV 220

- RTV 208 Audio Production II** 2-8-6  
 This course in advanced audio production addresses the application of audio in various media. The technical planning process, sound design, and advanced radio production techniques and equipment are the main focus of the course. Students will become involved with multi-track recording and gain a basic understanding of audio signal processing equipment. Prerequisite: RTV 204
- RTV 209 Video Production II** 2-8-6  
 This course will prepare the student to handle planning, production and equipment from early stages of audience analysis to post production. Students will apply their knowledge of television systems and video production I to produce two complete programs (one artistic in nature and another with an educational objective). Prerequisites: RTV 220 and RTV 207
- RTV 211 Broadcast Journalism** 3-6-6  
 An introduction to the field of broadcasting journalism with special emphasis on the gathering, writing, delivery, editing and processing of news. Prerequisite: OSC 101
- RTV 212 Broadcast Operations** 3-0-3  
 The technologies of computers and satellites, combined with the data, audio and video messages of radio and television, center the human and technical systems that drive the modern broadcast facility's daily operations. This course studies first-hand the work involved in organizing, managing and maintaining the on-line systems of radio and television broadcast and cable facilities. Students will be introduced to a variety of new technologies which are likely to drastically change the telecommunications industry in the near future.
- RTV 218 Broadcast Law** 3-0-3  
 This is a lecture type course designed for upper level students to examine broadcast regulation. They will be exposed to the basis of American Law and how it created the Federal Communications Commission. The focus will be on first amendment, obscenity laws, and copyright regulation. Students will determine how current FCC regulation is affecting the broadcast industry.
- RTV 220 Introduction to TV Systems** 5-4-7  
 Students become familiar with the technical systems that allow the production, transmission, and reception of television. The course is meant to prepare students for a better rounded operational prospective rather than to train broadcast engineers.
- RTV 221 Troubleshooting Broadcast Equipment** 2-3-3  
 Students will learn that even though audio and video equipment are complex and expensive, it rarely breaks down if properly maintained. Students will be exposed to various common ailments and cures that can make their productions run smoother. They will gather a complete understanding of signal flow and how to quickly track down potential problems. Prerequisites: RTV 208 or RTV 209
- RTV 222 Industrial/Instructional Television** 4-0-4  
 Corporate, institutional, and instructional video will be examined as it is used at installations in the local area and nationally. The content of this type of programming and its design will be looked at as well as its financial implementation and evaluation.
- RTV 223 Broadcasting Management** 3-0-3  
 This is a lecture type course designed for upper level students to examine the issues, problems, and strategies of managing radio and TV stations and audio/video operations. The social, economic, and legal responsibilities of management are stressed and are analyzed in terms of the day-to-day realities of the communications industry.

**RTV 226 Supervised Work Experience I** **1-10-2**  
Students are assigned to work in either a radio, TV station, or related field for a minimum of ten hours a week. The objectives of the course is to provide actual experience for students, to practically apply their skills and knowledge, and to compile a usable portfolio of these and past experiences. Prerequisites: RTV 208 or RTV 209

**RTV 227 Supervised Work Experience II** **1-10-2**  
Students are assigned to work in either a radio, TV station, or related field for a minimum of ten hours a week. The objectives of the course is to provide actual experience for students, to practically apply their skills and knowledge, and to compile a usable portfolio of these and past experiences. Prerequisites: RTV 208 or RTV 209 or RTV 226

## **SAFETY AND FIRST AID**

**SAF 150 Adult CPR** **1-0-1**  
A course of instruction designed to develop competency in Standard First Aid and CPR. American Red Cross certification in Standard First Aid and Adult CPR is available through this course of instruction.

**SAF 151 First Aid/Community CPR** **3-0-3**  
A course of instruction designed to develop competency in the recognition of common emergencies, and the performance of first aid skills and CPR. Certification in American Red Cross Standard First Aid and Community CPR is available through this course of instruction.

## **SOCIOLOGY**

**SOC 160 Introduction to Sociology** **5-0-5**  
An analysis of the society and culture dealing with social organization, control, institution, stratification, and social change. Pre-requisite: RED 090 or satisfactory placement test scores.

**SOC 161 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. Pre-requisite: RED 090 and ENG 090 or satisfactory placement test scores. (W, Su)

**SOC 162 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. Pre-requisite: RED 090 or satisfactory placement test scores. (Sp, Su)

**SOC 163 Family Violence** **3-0-3**  
This course examines family violence in the context of a changing society and the family system. Beginning with a historical perspective of family violence, the course focuses attention on battering, child abuse, elder abuse, and sexual abuse. The investigation of each of these topics will enable the student to see how cultural factors and values influence family violence.

**SOC 170 Special Topics** **3-0-3**  
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 topics which may be offered under this description. (On demand)

**SOC 171 Human Sexuality** **3-0-3**  
A study of the biological and physiological 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.



**SOC 215 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)

**SPANISH****SPA 160, 161, 162 Fundamentals of Spanish I, II, III****3-2-4**

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 260, 261, 262 Intermediate Spanish I, II, II****3-2-4**

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. Prerequisites: Fundamentals of Spanish I, II, III or two years of high school Spanish. (F,W,Sp)

**TEXTILES****TEX 101 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. (F)

**TEX 102 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 101. (W)

**TEX 211 Yarn Forming 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. (W)

**TEX 212 Yarn Forming II****3-0-3**

This course will deal with yarn formation starting with the roving processing and will include spinning, winding and twisting. Processing of filamentous synthetic yarns will also be studied. Basic fundamentals of textile processing will be emphasized. Prerequisite: TEX 211. (Sp)

**TEX 213 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. (Su)

**WELDING****WLD 1101 Welding I****4-12-8**

A thorough study of basic oxyacetylene welding, cutting, brazing, soldering, and plasma arc cutting. Setting up and shutting down oxyacetylene welding station. Demonstrations on various types of weld joints, butt, lap, inside corner, outside corner will be preformed.



- WLD 1102 Welding II** 4-12-8  
 A thorough on the history of arc welding and the operation of various A.C. transformers, A.C. and D.C. rectifiers and D.C. motor generator arc welding units will be introduced. Studies are made on welding heats, polarities, electrodes. Demonstration on various types of weld joints and positions will be performed.
- WLD 1103 Welding III** 4-12-8  
 Welding 1103 consists of arc welding and inert-gas shield arc welding. A thorough study will be made of the equipment, operation, and procedures in gas-tungsten-arc welding and gas-metal-arc welding. This course is designed to provide practice in both types of welding. Safety procedures are stressed throughout the program.
- WLD 1104 Welding IV** 4-12-8  
 Welding 1104 consists of the study of pipe welding. A thorough study will be made on proper position and application. This course is designed to provide practice in all type of welding test pipe and plate. Safety procedures are stressed throughout the program.
- WLD 1118 Welding Problems I** 2-6-4  
 A thorough study of basic oxyacetylene welding, cutting, brazing, soldering and plasma cutting. Identify torch parts, types of gases, filler rods. Identify three types of flumes. Know what a good weld should look like and what type of penetration it has. Identify regulation parts, and be knowledgeable on all safety procedure in welding lab.
- WLD 1119 Welding Problems II** 2-6-4  
 A thorough study of arc welding, identifying proper skills, beads, and welding electrodes. The study on polarities, positions, and identifying and inspect weld coupons. Test welds for proper penetration, size, depth, and be knowledgeable on all safety procedure in arc welding area.
- WLD 1120 Welding Problems III** 2-6-4  
 A thorough study and operation on tungsten inert gas or "tig welding" and metal inert gas "mig welding" will be introduced. Studies are made on machine operations, torches, guns, heats polarities. Demonstration on various types of metal, weld joint and welding positions will be performed.
- WLD 1123 Auto Body Welding I** 2-6-4  
 The basic principles in use of mig, spot and oxygen, acetylene welding will be taught as applied to auto motive collision repair. A through study of how individual panels are held in place. Cutting equipment covered will be gas and plasma arc. The use of airless plastic welding equipment will also be taught.
- WLD 1124 Auto Body Welding II** 2-6-4  
 Further practice in replacing Auto Body Panels using spot welding, mig welding and plastic welding. Replacement of quarter panels, rockers and high strength steel frame members will be taught. Plastic welding on composite type plastics as well as adhesive type plastic repairs will also be studied.
- WLD 1135 Basic Gas Welding and Cutting** 2-3-3  
 A thorough study of basic oxyacetylene welding, cutting, brazing, soldering, setting up and shutting down oxyacetylene welding station. Demonstrations on various types of weld joints, butt, lap, inside corner, outside corner will be preformed.

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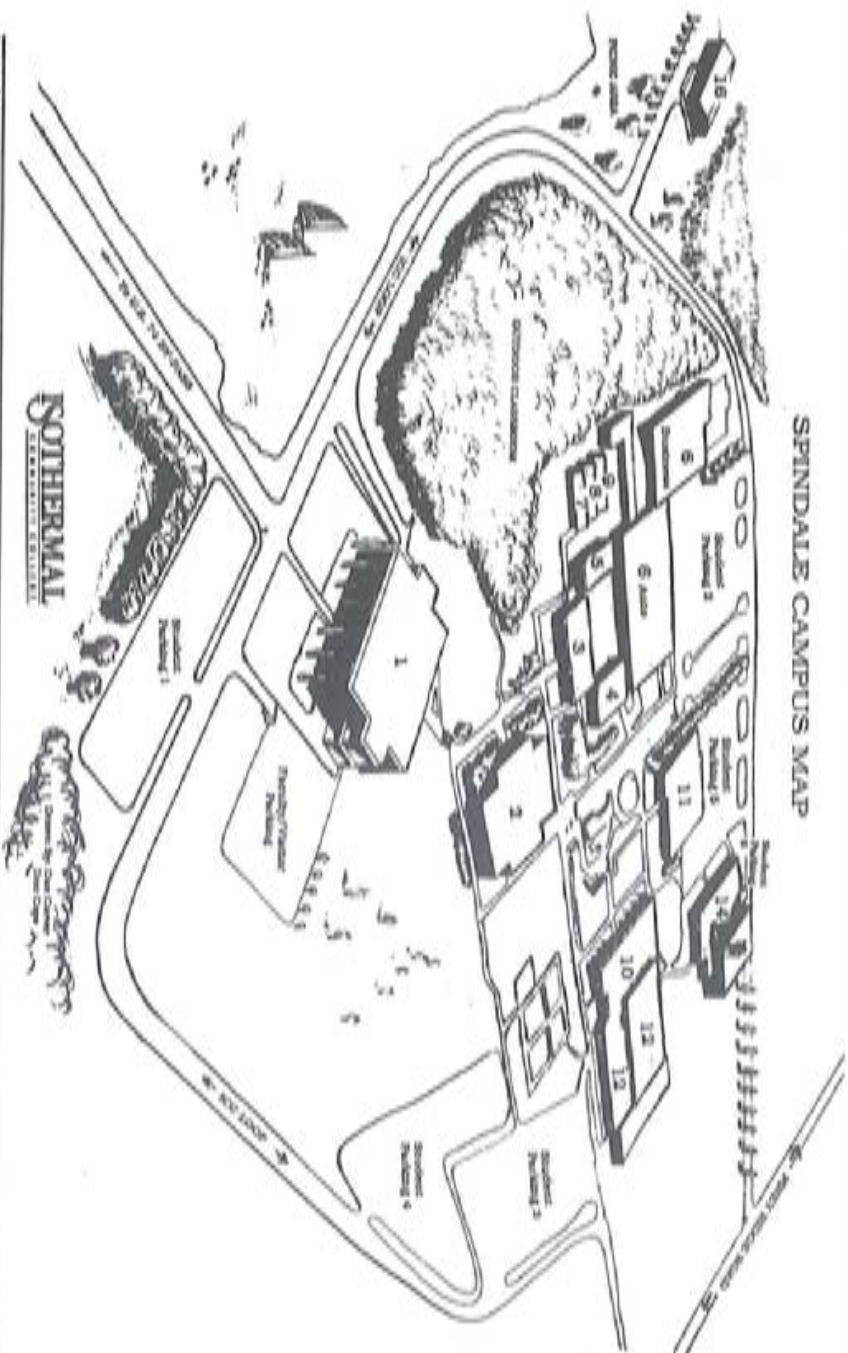


## Index

- Academic Load ..... 25
- Academic Probation and  
Suspension ..... 24
- Academic Procedures and Policies ..... 20
- Accreditation ..... 13
- Administrators and Faculty ..... 219
- Admissions  
Conditional Admissions ..... 18  
Foreign Students ..... 17  
General Requirements ..... 16  
High School Students ..... 18  
Readmission ..... 18  
Special Credit ..... 18  
Transfer Requirements ..... 17
- Adult Basic Education ..... 57
- Anthropology  
Course Description ..... 154
- Art  
Course Description ..... 154
- Associate Degree for Vocational  
Instructors ..... 95
- Auditing Courses ..... 20
- Auto Body Repair  
Certificate Program ..... 135  
Course Description ..... 155  
Diploma Program ..... 134
- Automotive Mechanics  
Certificate Program ..... 136  
Course Description ..... 155
- Beautician—See Cosmetology
- Biology  
Course Description ..... 158
- Bookstore ..... 50
- Business  
Certificate Program ..... 101  
Course Description ..... 159  
Pre-Business Administration ..... 71  
Pre-Business Education ..... 72
- Business Computer Programming ..... 102
- Campus Visit ..... 14
- Career Development Center ..... 34
- Changes  
Program ..... 22
- Chemistry  
Course Description ..... 166
- Child Care Worker Program  
Diploma ..... 138
- Class Attendance ..... 26
- Classifications, Student ..... 25
- College Calendar ..... 5
- College Transfer Program  
Associate of Arts ..... 69  
Associate of Science ..... 70
- Commercial Graphics ..... 106
- Conduct, Student ..... 48
- Continuing Education ..... 53
- Cooperative Education ..... 149
- Cosmetology  
Course Description ..... 170
- Counseling, Student ..... 34
- Criminal Justice ..... 108
- Curriculum Programs ..... 66
- Dean's List ..... 31
- Drafting and Design Technology ..... 111
- Dress Code ..... 49
- Drug and Alcohol Policy ..... 48
- Economics  
Course Description ..... 178
- Education Course Description ..... 178
- Electrical Installation and  
Maintenance ..... 142
- Electronics Engineering Technology .. 113
- Electronics  
Course Description ..... 182
- Engineering, Mechanical  
Technology ..... 123
- English Course  
Description ..... 184
- Fees, Student Activity ..... 51
- Financial Aid ..... 40
- G.E.D. (General Educational Development)  
Program ..... 59
- Geography  
Course Description ..... 187
- Geology  
Course Description ..... 187
- Grade Appeals ..... 27
- Grading System ..... 26
- Graduation  
Honors ..... 32  
Procedures ..... 31  
Requirements ..... 31
- Grants  
Federal Supplemental Education  
Opportunity Grants (FSEOG) ..... 41  
North Carolina Student Incentive  
Grants ..... 42  
Pell (formerly BEOC) Grant ..... 41
- Health Course Description ..... 188
- Health Services, Student ..... 37

History		Pre-Computer Science College Transfer Program	73
College	11	Pre-Law College Transfer Program	77
Course Description	188	Pre-Medical and Pre-Science College Transfer Program	79
Housing	37	Psychology	
HRD Program	58	Course Description	210
Humanities		Radio/TV Broadcasting	129
Course Description	189	Reading	
ID Cards, Student	51	Course Description	211
Individualized Studies	149	Real Estate	131
Industrial Science		Refunds, Tuition and Fees	23
Course Description	190	Registration	20
Insurance	190	Religion	
Law—See Pre-Law		Course Description	212
Liberal Arts		Repeating Courses	27
College Transfer Program	78	Residence Status for Tuition Purposes	51
Loans		Scholarships	43
Emergency Fund	43	Secretarial Programs	
Guaranteed Loan Program	42	Administrative Office	89
Scholarship Loan Fund for Prospective Teachers of North Carolina	42	Social Work	
Machinist		College Transfer Program	84
Certificate—Evening	144	Sociology	
Diploma	143	Course Description	215
Mathematics		Student Government Association	37
Course Description	191	Student's Rights	49
Pre-Math College Transfer	74	Student Support Services	150
Mechanical Engineering	123	Teaching Pre-Teaching—College Transfer Program	85
Music		Teacher Associate Program	132
Course Description	197	Technical Programs	88
Pre-Music College Transfer	81	Testing, Placement	35
Nondiscrimination Statement	14	Textiles	
Nursing		Course Description	216
Course Description	200	Traffic Regulations	50
Practical Nurse		Transcripts	21
Education	145	Tuition	
Office Hours	13	Non-residents	50
Orientation	33	Residents	50
Philosophy		Senior Citizens	52
Course Description	208	Veterans Affairs	39
Physical Education		Vocational Programs	134
Course Description	204	Welding Certificate Program	148
Physics		Course Description	216
Course Description	209	Diploma Program	147
Placement Testing	35	Withdrawals	23
Political Science		Work-Study Program	42
Course Description	210		
Polk County Campus	62		

# SPINDALE CAMPUS MAP



- Legend**
- Day 1 1st Floor - Administration & Business Offices/Information Desk
  - Day 1 2nd Floor - Student Center/Computer Services
  - Day 1 3rd Floor - Student Center/Computer Services
  - Day 1 4th Floor - College Records/Student Support Services
  - Day 2 Library/Strong Auditorium/OT/Physical Therapy/Chemistry
  - Day 3 Continuing Education/Technology/OT & SPH Office
  - Day 4 Academic/Student Shop
  - Day 5 Faculty/Classroom
  - Day 6 Business Administration/Computer/Physical Education/Classroom
  - Day 7 Art/Dance/Studio
  - Day 8 Sewing/Crafting/Studio
  - Day 9 Chair Store/Continuing Education
  - Day 10 Student Affairs/Student Center/Classroom/Student Store
  - Day 11 Tutoring/Physical
  - Day 12 Music/Dance Studio/Physical Education/Physical Therapy/Classroom
  - Day 14 Sign Shop/Vendors/Student Shop/Design/Studio
  - Day 16 Student Center
  - \* Available

**ISOTHERMAL**  
COMMUNITY COLLEGE

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